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I.—*Memoir of the Life and Writings of St. NIERSES CLAJENSIS, surnamed the Graceful, Pontiff of Armenia.* By JOHANNES AVDALL.

[Submitted to the Asiatic Society, 1st May, 1829*.]

At a period when Armenia was labouring under the lamentable effects of intestine broils and foreign invasions ; when she was subjected to the ruinous consequences of dissensions that existed between the leaders of the Armenian and Greek Churches, when tyranny and persecution of the most violent kind strode hand in hand in her territories, Providence deemed it necessary, out of sympathy for the sufferings of human beings, to raise up a person, who, by a happy combination of the qualities of a great mind, with those of a good heart, might be a proper instrument of knitting more closely man to man, and of removing disturbances from the Church of Christ, whose very essence is formed of love, meekness, and peace.

The individual, in whom the illustrious subject of this Memoir found a father, was called APIRAT, a prince famed for uncommon bravery and glorious achievements, who flourished in Armenia near the close of the eleventh century. He claimed his origin from the Pehlavic race, and had the happiness of perpetuating his memory by giving birth to four sons, known under the appellations of BASIL, SHAHAN, GREGORY,

* This paper was handed to us by a Member of the Committee of Papers of the Asiatic Society for 1829, on his departure for the Cape. It had been unfortunately mislaid among his papers. Although, (as the author's presentation letter says,) "it is not of a scientific nature, and consequently little adapted to the taste of the present age," still, considering that it is descriptive of the public acts of the greatest author and divine that flourished in Asia in the middle of the 12th century, and illustrative of the religious differences that separate the Church of Armenia from that of Greece, it cannot fail to interest many of our readers.—ED.

and NIERSES. The latter was born in the year 1100, in the castle of Zovs, which was the hereditary property of APIRAT. Allied by the ties of consanguinity to GREGORY VIKAYASER*, who then wielded the pontifical sceptre in Armenia, APIRAT entrusted to him the education of GREGORY and NIERSES, who were, by the direction of their guardian, admitted into the monastery raised on the summit of the Black Mountain. GREGORY VIKAYASER, when he had attained to a good old age, was by the repeated solicitations of the prince BASIL the Sly, and his illustrious lady, induced to change the place of his residence, and spend the remainder of his days near them, at Rapan, situated in the vicinity of the city of Cheson. On his departure from the monastery of the Black Mountain, he took with him his wards, GREGORY and NIERSES, having entertained favourable anticipations of their future greatness and celebrity. Some time after his having eventually settled in the Red Convent, near Cheson, perceiving that his career was daily drawing to a close, he sent for PARSICK, whom he had previously nominated his successor, and for BASIL the Sly, to whose kind care and protection he intrusted the lads GREGORY and NIERSES, the former being of the age of about 13 years, and the latter only 10 years, old. He also added, in the presence of those by whom he was surrounded, that, agreeably to his nomination, PARSICK should immediately after his death be invested with the pontifical authority of Armenia. On the elevation of the latter to that high station, he began to shew the greatest regard for the welfare and education of his wards, GREGORY and NIERSES, and accordingly placed them under the superintendence of Bishop STEPHEN, a divine of high attainments and profound erudition, in order, that they might by his immediate tuition be instructed in theology and the literature of the west. GREGORY and NIERSES continued to proceed in their education with two other fellow scholars, named SARKIES† and IGNATIUS, whose valuable productions have perpetuated their fame in the recollection of posterity.

* Vikayaser (Վիկայասէր) is the compound of Վկայ martyr, and սէր love, signifying *lover of martyrs*, which is an epithet given to GREGORY in consequence of the extreme veneration which he displayed for the memory of martyrs, and the great avidity with which he translated their lives from the Greek and Syriac languages.

† These two worthies are peculiarly distinguished among the divines, who flourished in Armenia in the twelfth century. At the special desire of the pontiff GREGORY, IGNATIUS wrote a commentary on the Gospel of St. Luke, which is held in general admiration for the perspicuity of its style and the sensible observations with which it abounds. SARKIES claims an equal share of veneration from his countrymen for his valuable productions, which have been handed down to us. They consist of Commentaries on the seven General Epistles, on

PARSICK having established the seat of his pontificate at the desert of Shughr, in the vicinage of Cheson, felt great interest in frequently visiting the Red Convent, in order that his occasional presence might enhance the utility and efficiency of the institution. Two years after this, considering that the qualifications and good conduct of GREGORY were worthy of sacerdotal dignity, PARSICK conferred on him the order of priesthood, when he had just attained the age of 15 years. Removed from the Red Convent, GREGORY remained with PARSICK in the pontifical house, where the latter with paternal care and exertions instilled into the mind of the former such principles of virtuous habits and sound doctrine, as might befit him for the high office which he was destined to fill.

Having enjoyed the pontifical authority for about eight years, PARSICK was cut off by sudden death. Before, however, this melancholy event, he summoned the dignitaries of the church of Armenia, as well as some of the nobility of the country, and in their presence, nominated his ward GREGORY as successor to the pontificate, presenting him with his pontifical robes and sceptre. Accordingly, the bishops and clergy of the nation having assembled in the Red Convent, anointed GREGORY with great honors Pontiff of all Armenia. Though of the age of twenty years only, the mental and moral qualities of GREGORY peculiarly adapted him for the responsibility of the high situation.

GREGORY having, by new improvements, strongly fortified the castle of Zovs, which had devolved on him after the death of his father, removed thither the seat of his spiritual government. After the lapse of several years, NIERSES, at the particular desire of his brother GREGORY, quitted his monastic seclusion, and entered into clerical orders. During the ceremonies of his ordination, the pontiff GREGORY bestowed on him the appellation of NIERSES, in veneration of the memory of NIERSES the Great*, who was of Parthian and Pehlavic extraction. By what name he was originally designated, no mention is made in the works of any of our historians. His profound learning and exemplary virtues soon raised him to the high dignity of a bishop, in whose capacity he was from time to time sent by the pontiff on visitations to the most populous provinces of Armenia, for the purpose of enlightening the minds of the ignorant, and pouring the balm of comfort into the hearts of the afflicted. Wherever he visited, his footsteps were marked with the Prayers of St. GREGORIUS NAREKENSIS, and on the Prophecy of ISAIAH. That of the General Epistles was published in Constantiuople in the year 1744; but those of the two latter have not as yet been discovered.

* For particulars of the life of NIERSES the Great, vide my translation of the History of Armenia, vol. i. page 181.

national improvements and spiritual good. By his peculiarly mild temper and upright principles, he was held in general estimation, and considered a very valuable member of the fraternity to which he belonged.

At this period, it must be recollected, the city of Antioch was in the possession of the Latins, who found it necessary to convene a general assembly for the purpose of taking into consideration some heavy charges that were preferred against RODOLPH, the Archbishop of that city, to his holiness INNOCENT the Second. Being deservedly distinguished among foreigners for the intense zeal they displayed both in the cause of Christianity and humanity, the pontiff of Armenia and his brother NIERSES were invited to become participators in the proceedings of the council. They met with a very honourable reception from the Latins, whose admiration of the graceful tone of their conversation could only be equalled by the surprise with which they caught every sentiment which fell from the lips of those bright ornaments of the Armenian church. On the conclusion of the meeting, which led to the deposition of RODOLPH from his episcopal dignity, the pontiff GREGORY went on a pilgrimage to the city of Jerusalem, and his brother NIERSES having returned to the castle of Zovs, performed the duties of a proxy during the absence of his brother from the seat of his pontificate.

Dissensions now arose among the Armenians and Syrians residing in some part of Mesopotamia, through the dissemination of the heretical doctrines of the Thondrakian sect*, which were calculated to mislead the simple and the illiterate. THULKURAN, an Armenian nobleman, eminently distinguished for his exemplary piety and benevolence, viewed the progress of these heresies with great apprehensions for the safety of the established Church of Armenia, and in consequence, endeavoured to check the evil, by communicating the state of things to the pontiff GREGORY, and soliciting him to take measures for effectually exterminating the sect. The latter, after giving the subject due consideration, communicated with his brother NIERSES on the best way of pro-

* The founder of this sect was an Armenian by the name of SUMBAT, who flourished in Armenia in the beginning of the ninth century. He was born in Zarehavan, a village situated in the province of Zalcotin; but in consequence of his long residence in Thondrak, he received the appellation of Thondrakensis, and his followers were known by that of Thondrakians. His mind was imbued with the heretical principles of the Paulicians, and the whole course of his life was marked with the greatest moral depravity, impiety, and wickedness. Like the Sadducees, he disbelieved the doctrine of future rewards and punishments, and in imitation of the opinions of EPICURUS denied that God was the creator and preserver of the world. He refused his assent to the creed of the graces of the Holy Ghost, the efficacy of the Sacraments of the Church, and the existence of sin, laws, and justice.

tecting the Church from the impending danger, and imposed upon him the task of addressing a general letter to the Armenian inhabitants of Mesopotamia, descriptive of the confession of the orthodox faith of the Armenian Church, and contradictory of the heterodox opinions of the Thondrakians. NIERSES performed the injunctions of his brother in such a successful manner, as to silence those who were inimically disposed towards the Church, and to restore peace and unanimity amongst the community of that place.

In the year 1142, the Grecian emperor JOHANNES PORPHYRIGENITUS led a considerable army into the country of Cilicia, in order to put down the power of the Scythians, which had already begun to assume a formidable appearance in that quarter. During his short stay in the city of Anarzaba, the emperor expressed a desire of having an interview with the Armenian pontiff GREGORY and his brother NIERSES. On their being presented to the emperor, they met with a kind reception, and were seated next to his imperial majesty. A conversation then ensued relative to the doctrines and ceremonies of the Armenian Church, and the sound judgment with which they answered the interrogations of the emperor, excited his regard and admiration. This afforded him a favourable opportunity of acquiring a correct notion of the state of the Armenian Church, and of removing from his mind that unjust prejudice with which he was in the habit of viewing the Armenians. The example of their monarch was soon followed by the majority of the people, who began to relax in the persecution with which they afflicted a nation whom by a common faith they ought to have protected from similar cruelties, when inflicted by the unbelieving Musulmáns.

Apprehensive, through the perturbed state of the country, of an attack upon his paternal castle of Zovs by foreign invaders, the pontiff GREGORY consulted his safety by quitting the place of his residence, and fixing the seat of his pontificate in the fortress of Hiromcla. Built on the confluence of the rivers Marzman and Euphrates, and strongly fortified by nature, Hiromcla proved an insuperable bar against an invasion. Formerly it was in the possession of the prince BASIL the Sly, and now it was under the control of the countess JOSCELYN. The pontiff GREGORY and his brother NIERSES met with a very hospitable reception from this illustrious lady, who felt the greatest delight in rendering their situation comfortable, and was exceedingly pleased with their charming and edifying conversation.

On the decease of her husband, who had been seized by NOURED-DIN*, the chief of Aleppo, and who died in confinement, the dowager countess JOSCELYN thought it safe to quit Hiromcla for Europe.

* MILLS's History of the Crusades, vol. i. p. 309.

Previously, however, to her departure, she made over the management of the fortress to the pontiff GREGORY and his brother NIERSES on the following condition: "I am about to quit this place," said she, "and proceed to my country. I leave this fortress as a trust in your hands, with a desire that in case my son happen to come to this quarter, you shall deliver it over to him as his patrimonial property; but if otherwise, you shall be entitled to its possession." On the arrival of young JOSCELYN in Hiromcla, he was made master of it in conformity with the desire of his mother. After a short residence in this place, JOSCELYN determined to quit it for Europe. In consequence of this intention, the fortress was sold to the Armenian pontiff GREGORY, who, according to the historians VARDAN and KIRAKUS, established in it the seat of his pontifical government, and raised there a very magnificent Church, embellished with splendid cupolas.

About the year 1165, when GREGORY had attained to a good old age, and enjoyed the pontifical office for a period of 53 years, he began to be solicitous for the nomination of a successor. He expressed a desire of conferring that spiritual dignity on his brother NIERSES, who was also past the meridian of life. The latter, though the offer was several times made to him by GREGORY, was unwilling to accept it. Finally, anticipating the approach of his death, GREGORY ordered a general meeting of all the Armenian bishops, monks, and priests to be held in the pontifical house at Hiromcla, for the purpose of considering the best mode of nominating a successor to the pontificate. In this assembly, after making an impressive speech on the approaching termination of his career, and the necessity of electing a successor worthy of the high station which he filled, he expressed his choice of investing his brother NIERSES with the pontifical authority, which proposition met with the unanimous and cordial approbation of the audience. NIERSES, who had made up his mind to exchange the troubles of a busy life for the sweets of solitude, in vain endeavoured to decline the offer of that responsible situation. Overcome by the repeated solicitations of the assembly, he was at last obliged to accept the office of the pontificate, with a view of promoting the general welfare of the nation. Immediately after this, GREGORY anointed NIERSES pontiff of all Armenia, and adorned him with the pontifical robes. He placed in his hand the sceptre of authority, and saluted him with the greatest reverence and submission as the head of the Church. When the ceremonies of the election were over, NIERSES rose and delivered a most excellent speech, expressive of his acknowledgments for the high honor that had been conferred on him, and descriptive of the nature of the responsible duties which he was bound to perform in the spiritual dignity to which he

was elevated. By this oration the audience were not only assured of the zeal and interest which he would feel for the welfare of his flock, but were also struck with a forcible conviction of the goodness of the heart and the grandeur of the mind, from which these graceful sentiments emanated. It was owing to a peculiarly sweet tone of his expressions, and a remarkably fascinating flow of the sentiments of his inspired mind, that he was distinguished by the appellation of the Graceful, Հարհալի, as he was latterly known by the cognomen of CLAJENSIS, Կլայեցի in consequence of exercising the functions of his sacerdotal office in the fortress of Hiromcla. About three months after the election of NIERSES, his brother GREGORY departed this life *Anno Domini* 1166, and was entombed in a sepulchre prepared during his life time.

Soon after the death of his brother, NIERSES, the pontiff, set about improving the state of the churches, and promoting the spiritual welfare of his flock. And as the Armenians in that time, like those in our days, were dispersed in various parts of the globe, that is to say, in the territories of Armenia, in Greece, Persia, Georgia, Aluans, Egypt, and other quarters, he found it essentially necessary to extend spiritual comforts even to his distant congregation, by sending to them pious and able missionaries, for the purpose of curing the wounds of the afflicted, and enlightening the minds of the ignorant. Not contented with the good that was likely to result from the zealous exertions of these preachers of the gospel, he, at the early part of his pontificate, and by the unanimous consent of his bishops, addressed a general epistle at great length to the people of his Church, which was couched in sentiments full of heavenly wisdom*. In this letter, after mentioning the death of his brother GREGORY, and taking a short view of the relative duties imposed upon him by his being elevated to the pontifical throne, he states the orthodox creed of the Church of Armenia, which is immediately followed by preceptive exhortations best adapted to persons of every age and rank. The letter itself is divided into different sections, the first of which is directed to conventuals, who are assimilated to the stars; the second, to the primates of monasteries, who are compared to the eyes; the third, to the bishops, who are likened to the head, countenance, and stewards; the fourth, to the priests, who are made to resemble parents; the fifth, to the nobility; the sixth, to the military order; the seventh, to the citizens; the eighth, to the husbandmen and peasantry; and the ninth, to the female sex in general. The immediate object of the writer was to excite a love of virtue and piety amongst his congregation, and to be instrumental in eradicating from their

* This pastoral epistle was published in Venice with a Latin translation in the year 1829.

minds such unwholesome principles, as are calculated to render human nature waste and deformed. There are also extant several epistles written by NIERSES to different individuals, about matters temporal and spiritual, amongst which his correspondence with the authorities of Greece, relative to the contemplated union of the Greek and Armenian Churches, claims pre-eminence. Of this I shall have occasion to give a detailed account in the following pages :

The attention of NIERSES the Graceful was chiefly engrossed by a fervent desire of introducing various useful plans of improvement into the Church of Armenia. He succeeded in his endeavours of reforming it from the remnants of those irregularities, which were some of the baleful consequences of foreign invasions, and which were still predominant in several parts of Armenia. He strove with great vigilance to restore to the Church that splendour, which it enjoyed during the glorious reign of the Christian kings of Armenia. He ordered old copies of the Prayer Book of the Armenian Church to be brought to him from various distinguished monasteries of Armenia major, and by a careful comparison of their contents, he modelled the liturgy with considerable improvements, which is to this day in general use amongst all the Armenians. He made several additions to the Prayers that were read on Good Friday and the Pentecost. According to the authority of MUKHITHAR, the pontiff, it appears that up to the time of NIERSES the Graceful, the Church of Armenia performed the ordination of priests and bishops conformably to the custom and ceremonies of the Greek Church ; but NIERSES, on his elevation to the pontifical throne, adopted a new mode of ordination, not materially different from those of the sister Churches.

Prior to the beginning of the twelfth century, poetry was a perfect blank in Armenian literature. Though metrical pieces and songs can be traced in our history to have been repeated and sung by the Armenians in different periods, yet no record is handed down to us as to the existence of regular poetry in the Armenian language. According to a faithful writer* of that time, great credit is due to NIERSES the

* NIERSES LAMBRONENSIS, a contemporary and relation of NIERSES the Graceful, pays a handsome and just tribute to his genius, learning, and virtues in a poetical panegyric which he composed on him shortly after his death. In alluding to the honor due to him for his being the first who introduced poetry into the Armenian language, the panegyrist writes thus :

Հոմէրական տաղից չափով.	“ Who first with grace Homeric numbers strung,
Ոտանաւոր տառից գտող.	And touchingly in fair Armenia sung,
’ի հոգեւորսն զնոյն տուօլ.	His verses soothe and elevate the soul,
Որոյ՛ զսիրտս կարծւր շմլօլ :	And bend our stubborn hearts to their control.”

Graceful as the first poetic writer in Armenia, whose talented productions have deservedly gained him the title of the Prince of Armenian Poets. Gifted by nature with a great genius, NIERSES devoted his leisure to the composition of melodies, anthems, and hymns, which are to this day sung in our Church to the admiration of all. Some of these poetical pieces are acrostic, the first letters of the stanzas composing the name of the author or the entire alphabet of the Armenian language. He also wrote several treatises and panegyrics, both in prose and verse, on dominical feasts, patriarchs, martyrs, and angels. During the days of his priesthood, he composed a brief history of Armenia in verse, from the period of HAIK to the twelfth century. A variety of miscellaneous pieces are also extant by this author, several of which he wrote before his elevation to the pontifical throne. At the express desire of his nephew APIRAT, he produced in verse a pathetic Elegy on the destruction of the devoted city of Edessa by the victorious army of ZENGHI, the chief of Aleppo, which memorable event took place on the 23rd of December, 1144*. This little work, which abounds with vivid descriptions and patriotic feelings, was for the first time published at Madras in the year 1810. Another edition of it was lately published by the Asiatic Society of Paris. The European public may shortly expect an English translation of it, which I have undertaken to execute†. On his being raised to the dignity of a bishop NIERSES produced another excellent work entitled ՅԵ ՈՐԴԻ “Jesus the Son‡,” which is a poetical description of the principal events that are recorded in the Old and New Testaments. During this time he composed that admirable prayer which commences with “I confess with faith,” Հաւատով խոստովանիմ, and which is now so popular amongst the generality of the Armenians. It consists of twenty-four verses, typical of the twenty-four hours of the day, and the number of the books of prophecy. Regarding this prayer, the author says in the records of old manuscripts, “I have written this in a plain and easy style, that it should be intelligible to general readers.” It is held in such great estimation by my countrymen, that a translation of it into twenty-four languages was published in the year 1823 by the Mukhi-tharian Society in Venice! NIERSES was not unaware of the benefit of combining *utile dulci* in the variety of his literary productions. He

* MILLS's History of the Crusades, vol. i. p. 307.

† The Armenian text was published at Calcutta in 1832. The translation has not yet appeared.—ED.

‡ This work is very popular with the Armenian literati, and has run through several editions, the latest of which was published at Venice in the year 1830.

wrote several entertaining fables and pleasing enigmas, with a view of affording to his countrymen a source of innocent pleasure of the mind. Besides those already enumerated, he produced several other little works, which, like many valuable antiquities, have not escaped the devouring jaws of time.

The fame of the sanctity and wisdom of NIERSES the Graceful having spread through various countries of the globe, many distinguished individuals addressed him letters comprising questions on the most difficult points of religion, which he answered with such skill as to carry conviction to the mind of every reasonable being. At the special desire of VARDAN, one of the venerable monks of the convent of Haghbat, he undertook writing a commentary of a sublime panegyric on the Holy Cross, the production of David the philosopher, distinguished by the cognomen of the Invincible. When the work was completed and presented to VARDAN, he highly admired the profound learning and the inspired sentiments with which it abounded. There are also a few philosophical treatises extant in our language, which some of our historians attribute to the pen of this bright luminary of the Armenian Church.

Great intimacy existed between NIERSES and GEORGIUS, primate of the convent of Haghbat, who was eminently distinguished for his piety and rectitude of conduct. The latter, who held a constant communication with the former, solicited him in a letter to use his endeavours to procure a copy of the Memoirs of St. SARKIES the General. NIERSES succeeded in obtaining the work, which was written in the Syrian language. He ordered it to be translated into Armenian by a Syrian priest, named MICHAEL, who was tolerably conversant with the Armenian language. This translation was subsequently revised by NIERSES in the year 1156, while he was a bishop. A copy of this work, written in Hiromela, in the year 1198, about twenty-five years after the death of NIERSES, is preserved in the library of the Mukhitharian Society at Venice. Annexed to this work, which appears to have been transcribed from the manuscript of NIERSES himself, is a commentary of the general Epistles of St. JAMES, St. PETER, St. JOHN, and St. JUDE, written in a concise and comprehensive style, and compiled from the works of Greek and Syriac theologists, whose names are specified. But who was the compiler of this work is not known, as no mention is made of him in the old records. In another copy of the same, which was written in the year 1335 at the convent of St. THADDEUS, situated in the province of Artaz, the compilation of the work is attributed by the transcriber to NIERSES. This is, however, a mere conjecture, for it can be clearly perceived from the style that it is not the production of

NIERSES. Perhaps a transcript made by him from the original was left in the pontifical house at Hiromela.

In the evening of his life, NIERSES commenced writing a commentary on the Gospel of St. MATTHEW. He had performed it as far as "Think not that I am come to destroy the law or the prophets : I am not come to destroy, but to fulfil," when the termination of his earthly career put a stop to its completion. After the lapse of a considerable time, it was finished by JOHANNES ZORZERENSIS. There is another work by the talented NIERSES, which was intended as a guide for monastic life, and which he wrote while he enjoyed the dignity of priesthood. The profound learning which characterises his writings, the peculiarly beautiful style in which they are composed, and the divine spirit of benevolence which pervades every page of his compositions, are convincing proofs that the author of them was endowed with a mind of most extraordinary powers, and filled with divine inspiration. His voluminous lucubrations, which have been handed down to us by the unanimous applause of past generations, are highly creditable both to his head and heart as a man, a patriot, a divine, and a philosopher. Few can rise from the perusal of his works without being moved by feelings of reverence and admiration for the greatness of the mind from which they have emanated. NIERSES LAMBRONENSIS, the grandson of General SHAHAN, the brother of NIERSES the Graceful, who was one of his distinguished contemporaries, and had many opportunities of personally experiencing his mental and moral qualities, pays a just tribute to the memory of this paragon of learning in a poetical panegyric which minutely treats of the many amiable virtues with which he was adorned. The panegyrist properly dwells on the meritorious exertions, which NIERSES the Graceful made to promote the public good, on his exemplary piety and devotion, his rigid and abstemious habits, his continual studies and philosophical reflections, and the warm sympathies with which his heart glowed in relieving the distress of the poor, the orphan, the widow, the sick, the captive, and others who were doomed to suffer miseries and calamities.

During the pontificate of NIERSES the Graceful, there still appeared in some parts of Armenia remnants of a peculiar tribe of Armenians, known under the appellation of Արևորդիք AREVORDIES*, (the Sons of

* This people had probably derived their mode of worship from the ancient Persians, and perfectly agreed in the tenets of the Guebres of the present day. They adhered to the doctrines of ZERDASHT or ZOROASTER, who considered the sun as the grand receptacle of fire, and placed the existence of the Deity in the fiery element spread over all the universe.

the Sun,) who had continued in their ancestral superstitions, and not deviated from paying homage to the sun since the days of GREGORY the Illuminator, the second Apostle of Armenia. Through the zealous exertions of the Armenian missionaries, whom the pontiff NIERSES sent to different quarters of the country, the darkness of paganism, that had so long overhung the heads of these unbelievers, gradually began to vanish, and after the lapse of a few years, the whole of that tribe embraced Christianity, and were admitted into the fellowship of the Church of Armenia.

Contemporary with NIERSES the Graceful, there was in Armenia MUKHITHAR, an assiduous follower of ÆSCULAPIUS, and eminently distinguished for his Medical and Astronomical knowledge. He had the gratification of cultivating the friendship of NIERSES, from whose conversation he derived the greatest delight and spiritual comfort. At the particular request of this celebrated naturalist, NIERSES wrote a beautiful poem, descriptive of the beauties and excellencies of heavenly bodies. He added to it another small poem on the Creation of the World, and the mystery of the incarnation of our Saviour*. The latter is acrostic, the first letters of the verses of it composing this sentence ՄիԹար բժիշկ՝ ընկալ 'ի ներսեմէ զայս բան: " Doctor MUKHITHAR, accept from NIERSES this poem!" I hope it will not be considered here out of place to say, that this learned physician has left a very valuable work on Medicine, which is replete with wise observations and useful experiments. It was composed during the time, and by the desire, of GREGORY the pontiff, the successor of NIERSES the Graceful†.

One of the most remarkable actions that marked the earthly career of NIERSES the Graceful, was the contemplated union of the Armenian and Greek Churches. This desirable object, which originated from a most unexpected event, was undertaken during the life time of his brother GREGORY, the pontiff, and prior to his being invested with the supremacy of the Church of Armenia. But alas for the peace of Christianity! before the laudable undertaking was carried into execution, both Armenia and Greece were unexpectedly deprived of the only instruments by which such a happy change possibly could have been effected!

During the last days of the pontificate of GREGORY, dissensions arose between the two Armenian princes, THOROSE the Great Panse-

* These two little poems are also published in conjunction with the work called "Jesus the Son."

† This rare Manuscript work was discovered in the Royal Library of Paris, and published in Venice two years ago.

bastus and Lord of Cilicia, and OSHIN the Sebastus and Lord of Lambron. The reason of this unfortunate difference was, that the former insisted upon the latter to profess obedience to himself, and to decline becoming tributary to the Greeks, while OSHIN thought it safer to continue his allegiance to the Greek emperor, than to acknowledge the ascendancy of THOROSE. Blinded by selfishness, and provoked by mutual resistance, they were at last necessitated to have recourse to an appeal to arms, which was attended with fatal consequences to both parties.

The pontiff GREGORY, viewing these unfortunate circumstances with a spirit of national sympathy, imposed upon his brother NIERSES the task of effecting a reconciliation between the two princes by his mild and fascinating address. NIERSES succeeded in his endeavours of restoring to them peace and friendship, which were soon after followed by a happy alliance between them, THOROSE marrying his daughter to HETHUM, the son of OSHIN. On the celebration of this marriage, OSHIN desired NIERSES to accompany him to Lambron, with a view that its inhabitants might be benefitted by his edifying instructions and evangelical discourses. During their journey they had occasion to enter the city of Mamestia, which was then in the possession of the Greeks. Here they met ALEXIUS, the protostrator or generalissimo of the Greek army, who was the son-in-law of the emperor MANUEL, and had come thither with the design of visiting the frontiers that belonged to the Grecian empire. On his first interview with NIERSES the Graceful, ALEXIUS was struck with admiration by the grace and learning which pervaded every part of his conversation. One day religion being the topic of their conference, ALEXIUS expressed a desire of being furnished with information as to the cause of the division of the Church of Christ into so many doctrinal opinions. The promptitude with which NIERSES answered every question that was put to him, created in ALEXIUS a deep sense of veneration for him as an erudite divine, and left no appearance of doubt in his arguments. NIERSES convinced him that the difference of opinions between the Christian Churches merely existed in words and forms, and assured him that the creed of the Armenian Church was consonant to that of the Church of Greece.

ALEXIUS desired NIERSES to commit the whole of their conversation to writing, which he promised to present to the emperor, and to exert every nerve in effecting a union between the two Churches. He also proposed to him the solution of a few important points, which from their intricate nature had created a difference of opinion between the divines of the Greek Church.

NIERSES accepted the proposition with great interest, and accordingly wrote an epistle to him full of sound doctrine and incontrovertible proofs. He commenced the latter by saying, "I was extremely delighted by the opportunity of holding a conference with you, O philanthropic and pious nobleman, respecting the doctrines and forms of the Armenian Church! But as sentiments embodied by human utterance are liable to be effaced from the tablets of memory, by the lapse of time, by reason of the cessation of our remembrance, I do not hesitate to furnish you with a written account of all that you were pleased to hear from me. I shall endeavour to perform my task with as much propriety and precision, as my time and abilities will admit of. Encouraged by the love of knowledge, with which you are distinguished, I feel no small alleviation in the execution of my difficult undertaking. It may not be perhaps superfluous to add, that all my arguments are drawn from that pure source of religious truth, for which our divine fathers of old are so deservedly characterised."

This preamble is immediately followed by an orthodox confession of the Holy Trinity, and of the incarnation of our blessed Saviour. It is here asserted, that the Church of Armenia admits the duality of nature in Christ, and that the Armenians by the term "one nature," acknowledge by implication an unconfounded union of the divinity and human nature of our Saviour. It is also added that the Armenian Church, according to old customs, commemorates the nativity of our Saviour on the 6th of January, and that it is a gross fabrication that the Armenians observe the Annunciation day on the preceding day of the Epiphany. That in consequence of a want of olives, the Armenians make preparation of unction by the oil of odorous flowers. That they pay due reverence to pictures. That in constructing crosses of wood, nails are with no other intention affixed to them than with that of joining the parts together; while those made of silver and gold are without nails. That the prayer Սուրբ Աստուծոյ, "Holy God*," is offered in the Armenian Church to Jesus Christ, and not to the Father, or the Holy Ghost. That the custom of partaking of milk, butter, and cheese, on

* About half an hour previously to the commencement of high mass, the following short prayer is addressed to the Son in the Armenian Church: *Սուրբ Աստուծոյ, սուրբ և հզօր, սուրբ և անմահ, որ խաչեցար Վան մէր, ողորմեա՛մ մեզ:* "Holy God, Holy and Mighty, Holy and Immortal; who wast crucified for us, have mercy upon us." An erroneous impression had been made on the minds of the Greeks, that this prayer was indiscriminately addressed to either of the persons of the Holy Trinity, and by this conviction, they traced a fundamental error in the doctrines of the Armenian Church.

Saturdays and Sundays during the lent, has now become obsolete amongst the Armenian people, and though it is still continued by a few of the nobility, its entire abandonment will be effected in a short time. That the custom of using pure wine, unmixed by water, in the Holy Communion, has obtained in the Armenian Church since the days of the blessed GREGORY the Illuminator. Finally, the writer explains the nature of the abdomedal fasting, which is observed by the Armenians a few weeks before the commencement of the Lent.

ALEXIUS, on receiving from NIERSES the foregoing epistle, expressed his grateful acknowledgments for the same, and permitted him to take his departure for Lambron, after having bestowed on him every mark of honor suitable to his rank and office. NIERSES having remained in the latter place for a short time, quitted it for Hiromcla, where he met his brother GREGORY, the pontiff, and related to him every particular of the communication that had passed between him and the Grecian generalissimo ALEXIUS.

On the fulfilment of the immediate object of the letter of NIERSES the Graceful, on its being put into the hands of the emperor MANUEL, and the patriarch MICHAEL, they immediately ordered it to be translated into Greek, and felt great satisfaction at the opportunity that had offered itself of effecting a union between the Greek and Armenian Churches. The perusal of the translation filled their minds with admiration of the mild spirit and rare talents of the writer, and afforded them encouragement to carry the contemplated scheme into execution. Hereupon the emperor sent a deputation to Armenia, consisting of SUMBAT and ARUKH, both of Armenian extraction, with a letter to GREGORY the pontiff, dated September, 1167, expressive of his earnest desire of seeing the consummation of the happy union which was in contemplation. In order to proceed in this undertaking with facility and success, he wished that NIERSES the Graceful should be sent to Constantinople, thinking that the presence of both parties might in a great degree be conducive to an amicable settlement of the existing differences. The following is a copy of the letter in question :

“MANUEL COMNENUS PORPHYRIGENITUS, ever mighty and great, Augustus, emperor of Greece, and faithful king of God Jesus Christ, to his holiness Lord GREGORY, the excellent pontiff of Armenia, sendeth love and greeting. It is the imperative duty of all those, who by the medium of the baptismal font have entered into the fellowship of Christ, to have due regard for the fulfilment of divine justice, and to display special care and zeal for the advancement of love, peace, and unanimity amongst that class of people, who have Christ as the foundation of their religion. They are bound to use their unremitting endeavours to knit all the Christians with the bonds of union ; to make them followers of one shepherd, who became incarnate to save us from perdition, to bring them under

the guidance of one pastoral crook ; to cause them to 'lie down in green pastures' of orthodox faith ; to render them participators of the vital stream of wholesome doctrines, and to gather them within the pale of one Catholic Church. Elevated by Providence to the highest station that can be allotted here to a human being, I consider the duties of governing my empire less sacred, less beneficial, than those which oblige me to be instrumental in effecting an union of the Christian Churches. Impressed with this conviction, I shall, as far as time and circumstances will permit, strive to consummate an object, which involves the temporal and spiritual welfare of mankind.

"It is not less becoming to your excellent fraternity, who have made the scriptures and the laws of God your chief studies, and rendered yourselves conversant with the orthodox doctrines of the fathers of the Church, to use your friendly and influential co-operation in securing the welfare of the inward man, by collecting from the only source of life the dews of truth and salvation. Of your desire to promote this laudable object, we have been informed by our beloved son-in-law ALEXIUS, who delivered to us a letter bearing a detailed account of the conference that had taken place between you and him concerning the contemplated union of the sister Churches. It is our intention to give due deliberation to the state of the Armenian Church, and to institute inquiries into the creed thereof. A translation of the letter of your holiness was read by us with uncommon interest, and afforded us a source of the greatest satisfaction. Assured of the moral and Christian virtues, for which your holiness is so eminently distinguished, we feel real pleasure in rendering our aid to the consummation of an object highly desirable both to God and man.

"With this view we would propose to you to dispatch your brother NIERSES to our capital, as we are perfectly convinced that a man of his extensive information, varied knowledge, virtuous conduct, and amiable disposition, will not only be able to afford satisfaction to the Head of our Church, and the synod in general, but particularly tend to remove the difficulties which will otherwise be experienced from time and place. Let the insignificant cause of division, which subsists between the two Churches, be removed if it be within the scope of possibility ; and let not Christ, who redeemed us from eternal punishment by his precious blood, be considered a stumbling block, but the Head of the corner and the True Foundation of our faith, which unites us together in spirit. Let Christ be the centre of all our religious inquiries, the Anchor of all our spiritual aspirations, and the Director of all our ecclesiastical affairs. In him we founded our belief, to him our hearts were fixed, and by him our wounds were healed. From the Great Bestower of so many blessings you will no doubt obtain for your zeal in the sacred cause of Christianity that recompence which is reserved for the enjoyment of the elect. We have thought it necessary to depute our faithful servant SUMBAT, bearing this letter, with directions to induce you to despatch your brother NIERSES to Constantinople. He is also authorised to give you such other information, as might have a connexion with the immediate object of his mission. You may safely credit all that will be said by him on this subject. Adieu !"

While preparations were in progress at the capital of Greece for despatching the embassy to Armenia, the pontiff GREGORY terminated his earthly career. The Church of Syria was also at the same time

deprived of its supreme pastor, whose station was immediately filled by an able and worthy successor. News of the proposed union of the sister Churches having spread throughout the Christian countries which held a close intercourse with Armenia, the patriarch of Syria deputed two learned bishops to Hiromcla, for the purpose of taking a part in the proceedings of the council, which was shortly to be held by NIERSES the Graceful, for furthering the views of the intended union.

On the arrival of the embassy at Hiromcla, SUMBAT delivered the imperial letter to NIERSES the pontiff, communicating to him many interesting particulars on the part of the emperor, and persuading him to accompany him to Constantinople ; but the duties of his high office rendering his absence from the pontifical house indispensable at that very juncture, NIERSES sent a reply to the emperor, full of spirit and wonderful observations. As the letter itself is of great length, I shall here only give an outline of its contents :

“ I had the honor to receive the letter of your Imperial Majesty, addressed to my late lamented brother and immediate predecessor in the pontificate of Armenia. By the perusal of the inspired sentiments expressed in it by your godly Majesty, our hearts thrilled with that inexpressible delight which a person feels on recovering from the influence of sleep, and enjoying the vivifying beams of the glorious orb of day. It is gratifying to us to observe, that your Majesty is worthy of not only bearing the name of the true EMMANUEL, but also of his co-operation in ‘ breaking down the middle wall of partition *between us.*’ Endowed with these peculiar gifts of heaven, your Majesty is condescendingly pleased to accost us with a cheering voice, and propose measures for eradicating from amongst us that hatred, which has proved so baleful to the interests of Christianity, and the welfare of our country. I am so exceedingly delighted with your Majesty’s invitation, that I would, even if I were dead, like LAZARUS, arise from the grave, and obey the divine voice which summons me to your presence ; but violent disturbances abroad, and the urgent duties of my avocation at home, present insuperable barriers to my paying a visit to Constantinople. Notwithstanding these obstacles, I should still feel diffident to attempt discussing a question of so much weight in your august presence, from a conviction that the sphere of my knowledge would look like a mere drop in comparison with the vast ocean of your Majesty’s qualifications. All that were great and noble in Armenia, to our national misfortune, have now ceased to exist. The only comfort, with which we cheer our hearts in the melancholy gloom that overhangs our civil destinies, is derived from the circumstance of our Church being based on the solid foundation of Catholic faith. We place our confidence in the mercies of God, that the divine power which excited love and good-will amongst us, shall consummate a happy union between the two Churches.

“ Should your Imperial Majesty be graciously pleased to visit Armenia, for the furtherance of this desirable object, you will, by that act of condescension, display in your soul the stamp of that humility, with which the heavenly King came to the world to bestow salvation on mankind. We are sure that you will join with us in the conviction, that the lustre of glory reflected on your mighty empire by

splendid victories, and the aggrandizement of territories, will be cheerless and evanescent when contrasted with that of restoring peace to the Church of Christ, by blunting the weapons of the incorporate enemy, and suppressing envy and hatred, which like cankers have preyed on the very vitals of our spiritual existence. Our Lord Jesus Christ, viewing the baneful consequences of pride predominant in human nature, had recourse to humility as to an infallible cure of the spiritual infirmities under which mankind were labouring; and by means of his divine love and meekness, conciliated the hearts of those who were estranged from him by the infringement of his laws and ordinances. In imitation of the example set to us by our blessed Redeemer, it behoves your Imperial Majesty to make your dictatorial authority subservient to mildness and humility, in removing the cause of estrangement that exists between the two nations. As a tree which is bent to the ground is liable to be broken by a sudden and violent effort to restore it to its upright position, so a division amongst the members of Christ, rendered obstinate by time, is incapable of being removed by force. It stands in need of a long and patient application of spiritual ointment, I mean the exercise of a kind, mild, and conciliatory spirit on the part of your Imperial Majesty towards the Armenians placed under the sway of your government.

“Many of your people, to our great national misfortune, consider that the only means of conforming to the laws and justice of God, and of being worthy of inheriting the kingdom of heaven, consist in pouring upon us torrents of abuse, in destroying our Churches, in breaking our crosses, in overturning our altars, in ridiculing our religious ceremonies, and in harassing and persecuting the ministers of our Church. This unchristian animosity is carried to such a pitch, as to shame the horrid cruelties of the worst of unbelievers. Galled and persecuted by Moslem despotism, we have hitherto in vain sought protection in the sympathies of Christianity. Hence it must be inferred, that such a course of action not only fails to unite the divided, but tends to divide the united. The first effectual recipe, that can be applied to our spiritual distempers, is to make an exchange of the inveterate hatred for human love and kindness, and as a matter of consequence, to stimulate thereby the inhabitants of Armenia major to an acquiescence in the projected union. We humbly solicit your Imperial Majesty to order special prayers to be offered up in all the Churches throughout your empire, that the Almighty may be pleased to crown our undertaking with success. We have taken care that similar measures shall be adopted by our clergy in every quarter of Armenia.

“We have also particularly to request, that in case Providence assist us in discussing matters on the intended union in a general council, no mark of distinction or superiority should be observed between the Greek and the Armenian. Let no tone of authority be assumed by the former in denoting such points of the doctrines of our Church as are not accordant with those of yours, and no fault be imputed to the latter in boldly supporting the truths and dignity of their Church. Marks of distinction are only observable in the discussion of civil and temporal affairs. It is true that you claim pre-eminence in the attainment of knowledge and the exercise of earthly power; yet all those who are strengthened by the graces of regeneration in the baptismal font, are according to St. Paul ‘one in Christ Jesus.’ If, therefore, it may be pleasing to the Almighty to smile on our endeavours, and to bring our undertaking to a successful termination, we shall, in the assembly to be convened for the purpose, lay Christ

as the Rock and the Head of the corner over the two sundered walls of our Churches. Let not the subject be discussed with that fruitless and violent mode of controversy, which has hitherto been carried on by the sister Churches with detrimental consequences on both sides. Let brotherly love, unanimity, and an ardour after divine truths distinguish the whole course of the proceedings of the council. Let us, in accordance with the injunctions of St. Paul, bear one another's burden, and the infirmities of the weak, and so fulfil the law of Christ.' In laying open our spiritual distempers to the observation of one another, let each party reciprocally look for, in the other, a sympathising and confidential physician. Whatever may be beyond the reach of our penetration, let it be referred to the testimony of those whose judgment and experience have rendered them distinguished in the decision of similar questions. Able physicians do not consider their qualifications under-rated by taking medicines from the hands of their scholars, when they are labouring under the attacks of sickness. The eyes, though sharp enough in seeing the objects presented to their gaze, fall short of beholding themselves and the members of the body by which they are surrounded; and on their being attacked with soreness, they seek a cure from the eyes and hands of another. What has been stated above, will, we hope, be considered sufficiently satisfactory to your Imperial Majesty. We have communicated to you *multum in parvo*, and have desired your ambassador to furnish you with such other information, as may be thought to content the ardour of your curiosity. Adieu! Augustus Emperor! May your Majesty live long under the protection of the Almighty."

At the express desire of SUMBAT, who was at the head of the embassy, NIERSES the Graceful drew out another form of the Creed of the Armenian Church, being assured that it would tend to throw more light on the disputed points of religion, and carry conviction to the mind of every philanthropic inquirer. The contents of this letter were a clear, distinct, and comprehensive recapitulation of all that he had stated in the former one, presented to ALEXIUS, the son-in-law of the emperor. The letter commenced with the following beautiful preamble:

"It now becomes us to address ourselves to you, not with eloquence of speech, in which we are deficient, but in the truth of the spirit, in which we were instructed by those favoured with divine inspiration. We do not attempt giving colour to a schismatical darkness, by clothing our Creed with the light of orthodox faith, as we have unjustly been supposed to do by others guilty of a similar line of conduct; but what we have stored in the invisible spirit, we embody the same in visible writing, by the testimony of our minds, and the dictation of the Holy Ghost, who sees, judges and examines the utmost recesses of our hearts."

After making long and sensible observations on the mystery of the Holy Trinity, and the incarnation of Jesus Christ, leaning on the incontrovertible testimonies of the Fathers of the Church, he proceeds thus:

"Concurring in the fundamental principles of the Christian religion, we believe that the word, who was made flesh according to St. JOHN, was not changed into flesh by being divested of his divine nature, but that by an unconfounded

union with body, he was actually made flesh, and continued without flesh, as he was from the beginning. We believe that there are not two persons in Christ, one with flesh and the other without flesh; but that the very Christ is both with flesh and without flesh. He was made flesh by human nature, of which he partook, and remained without flesh in divine nature, which he had from the beginning. He is both visible and invisible, perceivable and unperceivable by the touch, beginning and unbeginning in time, the Son of Man, and the Son of God, co-essential with the Father in divinity, and concomitant with us in humanity."

After taking a comprehensive view of the mystery of the incarnation of our Saviour, he dilates on His divine and human wills, and clearly demonstrates, that the will of the humanity of Christ was always and in every respect obedient to that of his divinity:

"The human will had no ascendancy over the divine, as in us the passions very often domineer over the reason; but the divine will always exercised its dominion over the human: for the actions of the human were all guided and directed by the power and sway of the divine.

"In accordance with the doctrine of the wonderful union of the divine and human wills that exist in the person of Christ, we concur in the consistency of attributing his operations to a natural and supernatural agency. We do not ascribe his superior actions only to the divinity, unconnected with the humanity; nor his inferior acts only to the humanity, unconnected with the divinity. Were it not truly proper to connect the great with the little, how could it consistently be said that the Son of Man descended from heaven, and that God was crucified and bled on the cross? To the unconfounded union of both the divinity and humanity we attribute the divine and human operations of Christ, who sometimes as a God acted in the superior power of God, and sometimes as a man, acted in the capacity of man, as it is easily demonstrated by the whole course of his dispensations from the beginning to the close of his divine mission. He felt hunger as a man, and fed thousands with a few loaves as a God. He prayed for us and on our behalf as a man, and accepted with his Father the prayers of all his people as a God. In humanity he was brought as a lamb to the slaughter, and was dumb as a sheep before her shearers; but he is the Word of God, by whom the heavens were created, in his divinity. He died in human nature as a man, and raised the dead by divine power as a God. He suffered the pangs of death as a man, and conquered death by death as a God. It was not the one that died, and the other that conquered death; but it was Christ himself, who died, who lives, and who vivifies the dead. For the same Christ, being a man, and of a mortal nature, and being a God, and of an immortal nature, not dividing into two the unconfounded union of the divinity and humanity, so as to render the one untorturable and immortal, and the other susceptible of tortures and death, he suffered on the cross for the salvation of mankind with the inexplicable combination of these contrarieties, yielding in human nature to tortures and death, and in divinity, being free from pain, and immortal. He that died in human nature, was alive in divinity; he that was tortured on the cross, remained also free from the pangs of tortures; he that perspired through fear, levelled on the ground his assailants; he that was unjustly humiliated and strengthened by angels, strengthens all his creatures; he that is Creator of the universe, coequal in divinity with the Father, was born from his creature, and

partook of our nature. He is proclaimed by the preachers of the gospel to be perfect God and man, uniting in his person divinity and humanity in a manner far surpassing the union of the soul and body; for the former, being commended into the hands of the Father, was separated from the latter, but the divinity continued inseparable from both of them*."

The preceding creed is immediately followed by a detailed account of the forms and ceremonies observed in the Armenian Church, similar to that which the writer had previously drawn out at the particular request of ALEXIUS. It is concluded by the following short paragraph:

"In the perusal of our letter, wherein the creed and the observances of our Church are explained in a comprehensive style, we humbly hope that your Gracious and Imperial Majesty will not deny us the candour and sincerity with which our sentiments are embodied in writing. Let us not be suspected of parasitical subterfuges in the communication of our thoughts, and let it be remembered that we have stated in this nothing which is at variance with simple truth, and the genuine effusions of our hearts."

The motives of the writer in making this assertion were to silence the mouths of such miscreants of his nation, as had gone over to the Church of Greece, and were invidiously endeavouring to baffle the consummation of the proposed union, by rendering the doctrines and ceremonies of the Armenian Church censurable in the eyes of the Emperor and Patriarch of Constantinople.

On the return of the embassy to the Court of Greece, the letter of NIERSES was put into the hands of the emperor MANUEL, who personally presented it to the patriarch. A translation of it being read before a numerous assembly of the dignitaries of the Greek Church, they were struck with admiration at the irresistible arguments which it comprised. They were stimulated by its contents to the abandonment of the inveterate hatred which they bore towards the Armenians, and unanimously agreed in effecting the contemplated union between the two Churches. The emperor, excited by an intense desire of promoting this sacred cause, proposed to pay a visit to Armenia, accompanied by some of the learned theologists of Greece, with a view of meeting NIERSES the Graceful, and holding with him a conference on the religious differences that existed between the two nations; but he was unfortunately prevented from the fulfilment of his intention by the

* This clear, lucid and unequivocal confession of faith is enough to carry conviction to the minds of the most fastidious of our accusers, that the Church of ARMENIA is totally free from the heresies of EUTYCHES! Let it also satisfy such misinformed, misled, and misguided, writers as Mr. CHARLES MAC FARLANE, author of the *sublime Tale of CONSTANTINOPLE*, entitled "THE ARMENIANS," that we Armenians are not Eutychians, as he is led to believe from the misrepresentations of the Romanists.

commotions which at that time prevailed in the west. He consequently chose the alternative of deputing in May, A. D. 1170, to Hiromcla, LEZION Master THEORIANEY, a Greek divine, eminently distinguished for his theological and philosophical attainments, with JOHANNES, the learned Abbot of an Armenian monastery, from Philipopolis, generally known by the appellation of UTHMAN, bearing an imperial letter addressed to the pontiff of Armenia, in these terms :—

“ It afforded us great joy to learn your willingness to effect a happy union between the sister Churches, and acquiescing in your laudable views, we have deputed learned and pious men to confer with you on our behalf, and use every means in their power to remove the wall of partition between us.”

On the arrival of the deputation at Hiromcla, THEORIANEY and JOHANNES were kindly received by the Armenian bishops that were assembled by NIERSES the Graceful in the pontifical house, for the purpose of adopting the best mode of carrying the proposed union into execution. NIERSES, on the letter of the emperor being presented to him by THEORIANEY, shewed the latter every mark of honor and kindness, which his rank and the immediate object of his mission required. THEORIANEY had brought with him a copy of the letter of NIERSES, addressed to the emperor, with a view of obtaining an explanation on some points that appeared doubtful to them, and of satisfying their minds as to the reality of some assertions that were made by those who were inimically disposed towards the Armenian Church. To these ends an assembly of the Armenian and Greek bishops was held in Hiromcla, who commenced discussing the important points with decorum, mildness, and moderation. THEORIANEY, in the course of perusing the letter of NIERSES to the assembly, proposed, in proper order, several questions for solution, to which NIERSES made replies, full of convincing proofs. The course of discussions comprised queries on the duality of nature and will in the person of Christ, (about which point great stress was laid on this saying of CYRILLUS: “ The incarnate Word is of one nature,” which admits of various constructions,) the exact day of the commemoration of the nativity of our Saviour, the propriety of the prayer “ Holy God,” which was offered in the Armenian Church, the preparation of the holy unction, the necessity of performing prayers within the Church, and the decrees of the council of Chalcedon. At the conclusion of the meeting, NIERSES, in his endeavours to remove an erroneous impression from the mind of THEORIANEY, that the Armenians were monophysites, cited from a work of JOHANNES the philosopher, a renowned pontiff of Armenia, several proofs corroborative of the duality of nature in Christ. “ The work in question,” said he, “ which was before imperfectly known but to a few of our nation, was afterwards unanimously adhered to by my predecessors in the ponti-

ificate of Armenia." The work was, at the desire of THEORIANEY, produced at the meeting, and a few passages of the same being read to him, he highly admired its wholesome doctrine. A transcript of it was accordingly made out at the request of THEORIANEY, who wished to take it to Constantinople for the inspection of the emperor and patriarch. The proceedings of this council were committed to writing by THEORIANEY, as it appears from the panegyric written by NIERSES LAMBRONENSIS ON NIERSES the Graceful. THEORIANEY's account of this meeting was, in the year 1578, published in Greek and Latin, in conjunction with the records of the fathers of the Church.

Before the mission had quitted Constantinople for Hiromela, the emperor MANUEL communicated to MICHAEL, the patriarch of Syria, his intention of acceding to an union of the Greek and Armenian Churches. THEORIANEY, on his arrival at Hiromela, wrote to MICHAEL, soliciting his presence at the Council of union which was shortly to be held in the pontifical house of Armenia. The latter deputed a proxy in the person of JOHANNES, bishop of Cheson, who, reaching Hiromela after the meeting had terminated, felt great displeasure at the acquiescence of NIERSES the Graceful in the doctrines of the Greek Church, and began to censure him, as the representative of his patriarch, for such a line of conduct. NIERSES, by sensible observations, convinced him of the propriety and necessity of the union, and desired him that on his return to Syria he should use every means in his power to secure the consent of MICHAEL to the removal of the religious differences which had for ages disturbed the peace of the sister Churches.

On the departure of THEORIANEY for Constantinople in October in the year 1170, NIERSES addressed a letter to the emperor, of which the following is an outline.

"In delivering your Imperial letter to us, THEORIANEY assured us of the love and good-will, which you are graciously pleased to exercise in increasing the spiritual and temporal welfare of our nation. The proposal of effecting this happy union between the two Churches could proceed from no other source, than from a mind gifted with the choicest blessings of heaven, and entirely devoted to the service of its Creator. Enriched with every thing that is great and good, you burn with the desire of becoming a partaker of our spiritual poverty. On a conference held between us and the learned divines, whom your Majesty was pleased to depute, the veil of the unjust aspersions with which the two nations were covered, was rent asunder. By the collision of contrary opinions, the truth, which was surrounded with a mist of falsehood, burst to light, and shone with redoubled splendour. The result of the council of union is conducive to carrying conviction to the mind of every reasonable being, that the Greeks are free from the heresy of the Nestorian* division, and that the

* For the Nestorian heresies, see EUSEBIUS's Ecclesiastical history, tom. iii. pp. 256 and 257.

Armenians are also free from that of the Eutychian* confusion. Concurring in the fundamental principles of religion, the Armenians and Greeks are united together by the grace of God in the similarity of the creed of the Catholic and Apostolic Church. Fixed in the determination of our happy union, I shall address all our bishops residing in different quarters of Armenia, and ask their consent to some important points proposed by you for our acceptance, lest by their being excluded from taking a part in the furtherance of this desirable object, the result of our endeavours may prove contrary to our sanguine expectations. I have also, conformably with the desire of THEORIANEY, furnished him with another letter descriptive of the confession of our Church."

In this letter, after treating of the incarnation of our Saviour, in accordance with the tenor of his former one, he adds, that it is consistent with the orthodox faith to admit duality of nature in Christ, by reason of his perfect divinity and perfect humanity; that the Armenians, by attributing one nature to the incarnate word, on the authority of CYRILLUS, confess an unconfounded and indivisible combination of the divine with the human nature; and that the Church of Armenia anathematizes those who, in the sense of the heretical doctrine of EUTYCHES, may confessedly ascribe one nature to Christ.

On the return of THEORIANEY and JOHANNES UTHMAN to Constantinople, they felt great satisfaction in presenting to the emperor the letter of NIERSES, together with an account of the proceedings of the council. The perusal of these interesting documents afforded the greatest delight to the emperor, the patriarch, and the other dignitaries of the Greek Church. Their joy at the favourable prospect of their undertaking could only be increased by a sense of veneration, with which they were impressed on their being informed by THEORIANEY of the piety, mildness, and pleasant address of NIERSES the Graceful. The fame of the amiable qualities of the pontiff of Armenia rivetted the hearts of the Greeks to the cause of the sacred union, and made them exclaim with admiration, "Behold the wise course pursued by the pontiff of Armenia, and consider the orthodox creed followed by himself and the whole of his congregation! Thanks to Heaven, that in these

* The heresies of EUTYCHES are thus alluded to by EUSEBIUS in his Ecclesiastical History :

Ὡς δ' οὖν κληθεὶς Εὐτυχήης οὐκ ἐλήλυθε· τὰ δὲ, καὶ παραγενόμενος ἑάλω. εἰρήκει γὰρ, ὁμολογῶ ἐκ δύο φύσεων γεγενῆσθαι τὸν Κύριον ἡμῶν πρὸ τῆς ἐνώσεως· μετὰ δὲ τὴν ἐνωσιν, μίαν φύσιν ὁμολογῶ. ὅς οὐδὲ τὸ σῶμα τοῦ Κυρίου ὁμοούσιον ἡμῖν ἔλεγεν εἶναι· καθαιρεῖται μὲν.

EUTYCHES igitur, cum ad synodum vocatus non venisset, ac deinde coram convictus esset hæc dixisse: Fateor Dominum nostrum Jesum Christum, ante unionem quidem duas habuisse naturas: Post unionem vero unam duntaxat naturam confiteor. Sed et corpus Domini negabat ejusdem esse substantiæ cujus sunt nostra: depositus est.—*Eusebii Ecclesiast. Histor. tom. iii. p. 261.*

days of degeneracy we see a pastor of the Church adorned with so many Christian and moral virtues !” The hatred which the Greeks manifested towards the Armenians gradually began to abate, and a sort of generous sympathy was felt by the former, for the lamentable degradation to which the latter were reduced in a political point of view. They could not, however, reconcile themselves to the idea, that the Armenians, after conforming to the fundamental principles of orthodox faith, and admitting duality of nature in our Saviour, should still persist in asserting one nature in the union of his divinity and humanity. Though the arguments, with which the Armenians endeavoured to clear their minds on this subject, were perfectly sound and correct, yet the Greeks could not overcome their reluctance to make such concessions to them, and were consequently anxious that this obstacle to their union, together with a few others of minor importance, originating from certain observances of the Armenian Church, might prudently and speedily be removed.

Hereupon the emperor came to the determination of sending another embassy to Hiromclâ, consisting of the abovementioned THEORIANEY and JOHANNES UTHMAN, who were furnished with letters from the emperor and patriarch MICHAEL, bearing date December, 1172, and instructed to urge NIERSES to apply himself with increased interest and assiduity to the fulfilment of the object in view, lest the death of either of them might put a stop to the successful termination of their undertaking. Nine points connected with the creed of the Church of Greece were distinctly stated in the imperial letter, for the consideration and subsequent acceptance of the Armenians. It was also proposed by the emperor, that those points, but particularly that of the duality of nature in Christ, should be discussed, and admitted by the Armenians in a general council to be held for that purpose. Should they, however, be reluctant in conceding to some of the points alluded to, they might communicate their objections in a letter addressed by their pontiff to the emperor. The proposed points are the following :

I. Anathematize those who admitted one nature in Christ, that is to say, EUTYCHES, DEOSCORUS, SEVERIUS, TIMOTHEUS, and the followers of their heresies.

II. Confess in our Lord Jesus Christ, one Son, one person, one hypostasis formed of two perfect natures, which are inseparable, indivisible, unchangeable, unalterable, unconfounded ; so as not to consider Christ in a separate sense the Son of God and the Son of the holy Deiparous, but to acknowledge in him unconfusedly the Son of God and the Son of Man, and to confess him to be both God and Man in the duality of his nature. Confess in him the duality of actions and

natural will, both divine and human, not resisting each other, but the human will following and obeying the divine. III. The prayer "Holy God" should be offered in your Church by the omission of "*who wast crucified for us,*" and the conjunction "*and.*" IV. You should conform to the Church of Greece in commemorating the feasts, that is to say, the Annunciation day, on the 25th of March; the Nativity, on the 25th of December; the Circumcision, on the eighth day after the birth of Christ, to wit, on the 1st of January; the Baptism on the 6th of January; the Presentation of our Saviour to the temple on the fortieth day after his birth on the 2nd of February, and in like manner, agreeing with us in observing all the dominical feasts, as well as those of the holy Virgin MARY, of St. JOHN, of the Apostles and of others. V. The preparation of the unction should be made of the oil of the fruit of trees. VI. The Communion Service should be performed with leavened bread, and wine mixed with water. VII. Let Armenian Christians, both clergy and laity, remain within the Church, during the hours of prayer and the performance of communion service, with the exception of public penitents, who are prohibited by ecclesiastical canons from staying in the midst of the Church during the time VIII. You should accept the fourth, fifth, sixth, and seventh general assemblies. IX. The choice of the nomination of your pontiff should be vested only in the emperor of the Greeks.

On the arrival of the embassy at Hiromela, THEORIANEY and JOHANNES UTHMAN met with a very kind reception from NIERSES the Graceful, who having respectfully received the letters of the emperor and patriarch of Constantinople, communicated the contents of them to the principal bishops and friars of the Armenian Church, who had repaired to Hiromela from the mountains of Taurus and the frontiers of Mesopotamia. Though they were easily persuaded to concede to the chief points proposed by the Greeks, yet great difficulty existed in obtaining the consent thereto of other Armenian bishops, whose number amounted to upwards of three hundred, and who were living in different distant quarters, especially in the frontiers of Armenia major, save the body of monks who resided in monasteries, and who were almost of an equal number. Consequently, NIERSES thought it necessary to summon these worthies to the general meeting which was shortly to be convened for taking into consideration the points proposed by the authorities of Greece, and communicating the result of the assembly in a suitable letter to the emperor. He conceived the unanimous voice of all the principal dignitaries of the Church of Armenia indispensably necessary in the adoption of the points, which were the connecting links of the sister Churches, lest, he

feared, an unfortunate division might be created amongst the Armeni-
an ecclesiastics, and the result of their undertaking be attended with
lamentable detriment.

The ambassadors of the court of Constantinople applauded the
wise precautions which marked every act of the pontiff of Armenia,
but seeing that the council could not possibly be held before the setting
in of the summer, they determined to depart from Hiromcla. NIERSES,
in conjunction with THEORIANEY, addressed letters to MICHAEL, the
patriarch of the Syrian Church, communicating to him the points
which were proposed by the Greeks for their acceptance, and soliciting
the favour of his presence in the council that was shortly to be held at
Hiromcla for that purpose. MICHAEL being prevented by his various
avocations from going to Hiromcla, sent in his room the friar THEO-
DORUS, who was eminently distinguished for his profound learning and
conversancy with the Syrian, Greek, Armenian, and Turkish languages.
On the arrival of the latter at Hiromcla, he was received by NIERSES with
every kind of respect due to his rank. A discussion arose between them on
the import of the words "substance" and "nature," which, according
to the doctrine of Aristotle, admitted of various constructions. THEO-
DORUS, widely differing from the sentiments expressed by NIERSES on
this subject, immediately took his departure from Hiromcla. In the
mean while, THEORIANEY and JOHANNES UTHMAN returned to Con-
stantinople, furnished with letters addressed by NIERSES to the emperor
MANUEL and the patriarch MICHAEL. NIERSES promised them to
convene a general council for the decision of the question of the in-
tended union, and to endeavour to make the concessions they required.
"I shall assiduously try," says he, "to overcome the long received
customs of my countrymen, which prevail on them with the power of
a second nature, and to force them to an acquiescence in such of the
points proposed in your letters, as may possibly be reconciled to their
minds. In so doing, we shall only be actuated by a desire of promot-
ing divine love and peace amongst us, but not by an idea of turning
from errors into truth. The acceptance of the rest of the points either
must be overlooked by you, or left to time, and the happy union which
shall shortly be effected amongst us."

Immediately after this, NIERSES addressed letters to all the Armenian
bishops, abbots, and friars residing in different quarters of Armenia,
Syria, Aluans, Georgia and Persia, communicating to them all that
had passed respecting the union of the sister Churches. He also
desired them to pray to the Almighty for the consummation of the
laudable object in view, and to take an early opportunity of going to
Hiromcla for the purpose of being present in the council that was

shortly to be convened. Moreover he deputed one friar STEPHEN with a letter, inviting the Armenian clergy of Ani and Haghbat to the proposed assembly.

But alas ! how often human endeavours and expectations are frustrated before they have attained to maturity ! On the lapse of a few months, while NIERSES was engaged in preparations for holding the council of union, his earthly career was by the inscrutable dispensation of God terminated, *Anno Domini* 1173, in the seventy-third year of his age. He enjoyed the supreme dignity of a pontiff for seven years, and in that period ordained only seven bishops. His remains lay in state for several days, during which time numbers of Armenians thronged to the pontifical house with a desire of kissing the hand of the deceased. Among those who had assembled there to pay their last tribute of veneration to the virtues of the deceased pontiff of Armenia, were NIERSES LAMBRONENSIS and several bishops and friars of distinction.

This melancholy event plunged the nation into the greatest distress, for they had lost in NIERSES the Graceful a vigilant pastor, a kind father, a faithful friend, a gifted divine, and a most zealous advocate of the truth of Christianity. GREGORY BASIL, the nephew of the deceased pontiff, who was living at a great distance from Hiromela, on hearing of the dangerous illness of the latter, immediately repaired thither to see his uncle ere he breathed his last. On his arrival at that place, he found NIERSES dead. He evinced the greatest sorrow at the lamentable catastrophe which had fallen on his family and the nation in general. The funeral of the deceased pontiff was performed with the greatest pomp and honors, that his rank and exalted station deserved, being attended by almost all the dignitaries of the Armenian Church, the nobility and other distinguished members of the nation, whose heartfelt sorrow, at the irreparable loss which the Church and the state had sustained, could distinctly be read in the melancholy expressions of their downcast countenances. His remains were deposited in a sepulchre which was dug near that of his brother GREGORY, and a very splendid mausoleum was afterwards raised over him, bearing upon it a suitable inscription commemorative of his moral and Christian virtues.

News of this melancholy event reaching Constantinople, filled the heart of the emperor with the most poignant grief, and spread general regret throughout the Greek empire, every Greek sympathising with the Armenians for the loss which they had sustained in the person of their gifted pontiff. When his grief had comparatively subsided, the emperor wrote a letter of condolence to GREGORY BASIL, who had by

the unanimous voice of the nation succeeded his uncle in the government of the Church of Armenia. The progress of the religious union of the two nations, which was unfortunately impeded by the Church of Armenia's being deprived of its head, was renewed by the communications of the emperor with the pontiff GREGORY, who, emulating the laudable example of his immediate predecessor, manifested equal zeal and inclination in the restoration of peace to the bosom of the Church of Christ. Before, however, the question of the long wished-for union was happily decided, Greece was deprived of her most illustrious, pious, and virtuous ruler, in the year of our Lord 1180, which melancholy catastrophe proved a death-blow to the nearly-finished structure of peace, and blasted in the bosoms of every Armenian and Greek the hopes of their future union!

II.—*Discovery of Buddhist Images with Deva-nāgarī Inscriptions at Tagoung, the Ancient Capital of the Burmese Empire. By Colonel H. BURNES, Resident at Ava.*

[Read before the Society, 6th April, 1836.]

I have the pleasure to forward to you a couple of images of GAUDAMA in *Terracotta*, which Captain HANNAY has just sent down to me from *Tagoung*. On both there is an inscription, apparently in the same old Deva-nāgarī character, as in the inscription No. 2, of the Allahabad column, and probably consisting of the same words as those on the image of Buddha found in Tirhut, and in the other ancient inscriptions described in No. 39 of the Journal of the Asiatic Society*.

Tagoung, written *Takoung*, (or according to Sir W. JONES's system, *Takaung*, but pronounced by the Burmese *Tagoung*,) you will find placed in our maps a little above the 23rd degree of north latitude, and on the eastern or left bank of the *Erawadi* river. Captain HANNAY, however, has ascertained its latitude by an observation of the sun to be 23° 30' N., and several Burmese itineraries in my possession make its distance from Ava 52 *taings*, or about 100 miles. The Burmese consider *Tagoung* to have been the original seat of their empire, and the site of an ancient city, which was founded before the time of GAUDAMA, by a colony that emigrated from Central India. Some faint remains of an old city are still to be seen on this spot, where among the ruins of some pagodas, Captain HANNAY found the images I now send you. No one here can decypher the character of the inscriptions, but on showing to some of the learned, the account

* This is precisely the case:—even to the form of the letters—the dialect however seems to be *Magadhī* or *Pāli*, *dhammā* and *pabhavā* for *dharmā* and *prabhavā*, &c. See the accompanying plate.—ED.

of the *Buddha* inscriptions given in the 39th No. of the Journal of the Asiatic Society, the words "*Ye dhamma*, &c." were immediately recognised, and supposed to be those placed under these images of GAUDAMA also. The two figures seen standing on each side of GAUDAMA in one of these are not, as I had supposed, his two favorite disciples, MOUGGALAN and THÁREPOUTTARA, but figures of a preceding *Buddha* named DI'PENKARA, who first delivered the prophetic annunciation to GAUDAMA, whilst the latter was existing in the state of THOUMEDA hermit, declaring that after myriads of years, which he would take in perfecting himself in every virtue, he would attain the state of a *Buddha*. The learned Burmese confirm Dr. MILLS's opinion, and Mr. HODGSON's information, that there is no connexion between the last two lines and the first two produced by M. CSOMA DE KÖRÖS, in the 39th No. of the Journal of the Asiatic Society. The last two, they say, are intended to show the points of instruction delivered, not by GAUDAMA only, but by every preceding *Buddha*, and they translate the *Páli* thus :

"The not doing of every kind of evil, fulfilling of good, and purifying and cleansing the heart : these above mentioned are the precepts of *Buddhas*."

With the first two lines beginning "*Ye dhamma*," the Burmese books connect the following anecdote :

On the third year after GAUDAMA had attained the state of a *Buddha*, whilst he was residing at Welawoon monastery in the city of *Yazagyo*, (*Rajgiri*), one of his disciples, named ASHEN ATHAZI MATT'HEE, went into that city to receive charitable donations, and was met by OOPADEITTHA, the son of the female Brahman THÁRE, and a disciple of THEIN-ZEN PARABAİK, some kind of heretics so called. OOPADEITTHA asked ASHEN ATHAZI MATT'HEE, who was his teacher, what were his opinions ; the latter replied, "My teacher is the most excellent Lord GAUDAMA, his doctrines are as boundless as the sky. I am but lately become a *Yahan*, and know a little of them only." OOPADEITTHA begged that he would repeat a little of them only, when ATHAZI MATT'HEE recited the two lines beginning with the words *Ye dhamma* ; but the moment he finished the first line, OOPADEITTHA was converted. He then followed the other to GAUDAMA, who received him as a disciple, and changed his name into THÁREPOUTTARA, or the son of THÁRE the female Brahman, by which name he was ever after distinguished as one of the favorite disciples of GAUDAMA, and is always figured as seated on his right hand, whilst MOUGGALAN, the other favorite disciple, is seen on the left hand. Hence, these words have ever since been considered, as Mr. HODGSON states, as a *confessio fidei*

among *Buddhists*. Before giving the Burmese explanation of these two lines, I must premise, that according to their system of belief, there are four *Theettsa*, fundamental truths, or moral laws in the universe, a knowledge of which GAUDAMA attained intuitively at day-break of the morning on which he was perfected into a *Buddha* under the pipal-tree at *Gaya*, and therefore, one of his titles is *Thamma tham-bouddhattha*, said to mean, he who intuitively acquired a knowledge of the four *Theettsa*. These four *Theettsa* are called *Doukkha Theettsa*, *Thamoudaya Theettsa*, *Niraudha Theettsa*, and *Megga Theettsa*.

1. *Doukkha Theettsa* means the law of suffering and being, to which all sentient beings are certainly subject whilst revolving, according to the destiny of their good or evil conduct, in the three different states of existence, whether as a *Nat* or inferior celestial being, a man, or a brute.

2. *Thamoudaya Theettsa* is the law of evil desires and passions, by which all sentient beings are certainly affected.

3. *Niraudha Theettsa* is the termination of or emancipation from the operation of the two preceding laws. Not being subject to age, sickness, death, or misery, and being in a state of ease, quiescence and duration uninterrupted. This is *Neibban*.

4. *Megga Theettsa* is the cause or the way of reaching the last, and is explained by some to be the *Meggen Sheet ba*, or the eight good ways, which, as translated by Mr. JUDSON, are right opinion, right intention, right words, right actions, right way of supporting life, rightly directed intelligence, caution, and serenity. Others explain it to be the *Meg le dan*, four grand ways, or four grand orders of *Ariya*, each subdivided into two classes, and an *Ariya* is a man who has extinguished evil desires and passions, and attained proficiency in certain virtues and miraculous powers.

Now the Burmese say, that GAUDAMA's doctrine shows, that the first of the above *Theettsas* is the effect, and the second the cause, and that the third only can emancipate us from the eternal thralldom and suffering of the two first, and that this third is to be obtained only by means of the fourth. The lines are thus literally translated :

“The law (of suffering and being) proceeds from a cause, which cause (the law of evil desires and passions) the *Tathagata* preaches, and *Niraudha*, the means of overcoming or terminating those (two laws). These are the opinions of *Maha Thamana*, or the great *Yahan*.

Dhamma, according to the Burmese, is not “human actions,” or “all sentient existences” only, but the law which governs or affects them, the fundamental law of the moral world.

All that the Burmese know of the emigration from Central India,

and of the founding and history of the old city of *Tagoung*, is given in the 3rd volume of the *Chronicles of the Kings of Ava*. Here is an abstract of the tale.

Long before the appearance of GAUDAMA, a King of *Kauthala** and *Pinjalarit*, desiring to be connected by marriage with the King of *Kauliya*, sent to demand a daughter, but receiving a refusal on the ground of his being of an inferior race, he declared war and destroyed the three cities of *Kauliya*, *Dewadaha*, and *Kappilawot*, which were governed by the *Tháki* race of kings†. These cities were afterwards restored, and the *Tháki* line re-established; but on the occasion of the above disaster, one of the *Tháki* race of kings, ABHI'RÁJA, the king of *Kappilawot*, retired with his troops and followers from Central India, and came and built *Tagoung*, which was then also styled *Thengat tharatha* and *Thengat tha nago*. Here had stood a city in the times of the three preceding *Buddhas*. In the time of KEKKUTHAN it was called *Thanthaya púra*; in that of GOUNÁGOUN, *Ratha púra*, and in that of KATTHABA, *Thendwè*. On the death of king ABHI'RÁJA, his two sons, KAN YÁZÁGYEE and KAN YÁZANGAY, disputed the throne, but agreed by the advice of their respective officers to let the question be decided in this way, that each should construct a large building on the same night, and he, whose building should be found completed by the morning, should take the throne. The younger brother used planks and bamboos only, and covered the whole with cloth, to which by a coat of white-wash he gave the appearance of a finished building. At dawn of day, KAN YÁZÁGYEE, the elder brother, seeing the other's being completed, collected his troops and followers, and came down the *Erawadi*. He then ascended the *Khyendwen*, and established himself for six months at *Kule‡ Tounngnyo*, calling it *Yázágyo*, and sent his son MOODOOTSEITTA to be king over the *Thoonaparan Pyoos*, *Kañyan*, and *Thet*, who then occupied the territory between *Pegu*, *Arracan*, and *Pagan*, and had applied to him for a prince. KAN YÁZÁGYEE then built the city *Kyouk padoung* to the east of the *Guttshapadee*, and resided there for 24 years. From thence he went and took possession of the city of *Diniawadee*, or *Arracan*, which had originally been founded by a king MAYAYOO, and having constructed fortifications, a palace, &c. took up his residence there.

* *Kauthala*, (Kosala) Dr. WILSON considers to be the same as the present territory of Oude. Some of the Burmese consider *Pinjalarit* to have been a kingdom in the Punjab.

† See No. 20 of the *Journal of the Asiatic Society* for an account of the origin of the *Shákya* race, which the Burmese call *Tháki* and *Thákya Tháki*.

‡ *Kule* is a territory to the southward of Manipur.

The younger brother, KAN YAZA NGAY, took possession of his father's throne at *Tagoung*, where the undermentioned 33 kings reigned in succession.

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| 1. Abheerāja. | 18. His son Thendwè Yázá. |
| 2. His son Kan Yázá ngay. | 19. His son Thíhala Yázá. |
| 3. His son Zaboodeepa Yázá. | 20. His younger brother Han-tha Yázá. |
| 4. His son Thengatha Yázá. | 21. His son Wara Yázá. |
| 5. His son Weippana Yázá. | 22. His son Aloung Yázá. |
| 6. His son Dewata Yázá. | 23. His son Kaulaka Yázá. |
| 7. His son Munika Yázá. | 24. His son Thuriya Yázá. |
| 8. His paternal uncle Nága Yázá. | 25. His son Then-gyí Yázá. |
| 9. His younger brother Einda Yázá. | 26. His son <i>Taing-gyít</i> Yázá. |
| 10. His son Thamoodi Yázá. | 27. His son Madu Yázá. |
| 11. His son Dewa Yázá. | 28. His son Menlha-gyí Yázá. |
| 12. His son Maheinda Yázá. | 29. His son Than thu thiha Yázá. |
| 13. His son Wimala Yázá. | 30. His son Danenga Yázá. |
| 14. His son Thihanú Yázá. | 31. His son Heinda Yázá. |
| 15. His son Dengana Yázá. | 32. His son Mauriya Yázá. |
| 16. His son Kantha Yázá. | 33. His son Bheinnaka Yázá*. |
| 17. His son Kaleinga Yázá. | |

In the reign of the last-mentioned king, BHEINNAKA YÁZÁ, the Chinese and Tartars from the country of *Tsein*, in the empire of *Gandalareet*, attacked and destroyed *Tagoung*. That king, collecting as many of his people as he could, retired up the *Malí* river, where upon his death his followers were divided into three portions. One portion proceeded to the eastward and established the 19 *Shan* states, whence they are called king BHEINNAKA's race. Another portion came down the *Erawadi*, and joined the *Thunaparanta* kingdom, which was inhabited by the *Kanyan* and *Thet* people, and was the seat of MU'DUT-SEITTA and other kings of the *Tháki* race. A third portion remained near the *Malí* river, with the last king's principal wife named NÁGA ZEIN. About this period, GAUDAMA appeared in Central India, and a dispute occurred between king PATHANADI' KAUTHALA of *Thawotthi*† and a king of *Kappílawot*, named MAHA NAMA. The former had applied for a daughter in marriage, and the latter, unwilling to deteriorate his race, sent, instead of one of the princesses of royal blood, a daughter named WATHABA KHETTIYA, whom he had by a slave girl. She was however received as a queen, and bore a son, who was named prince WIT'HAT'HOOPA. When this prince grew up, he paid a visit to *Kappílawot*, and on his departure, the spot which he had occupied was termed the place of a slave-girl's son, and washed with milk. Hearing this, the prince vowed revenge, and

* The title of these kings is Rájá, but the Burmese pronounce it Yázá.

† *Sravasti* in Oude, according to Dr. WILSON.

declared that as soon as he became king, he would wash the necks of the *Kappilawot* people with blood. Accordingly, on his accession to the throne, he set out three times with an army to attack the *Thakí* race of kings, but was stopped by GAUDAMA. On the fourth time, GAUDAMA, foreseeing the future destiny of those kings, would not interfere, and king WIT'HAT'HOOPA destroyed *Kappilawot*, *Dewadaha*, and *Kauliya*, three cities in the empire or country of *Thekka*, the seats of the *Thakí* race of kings.

On this occasion one of the *Thakí* race, named DAZA YÁZÁ, retiring from Central India, came first and established himself at *Mauroya*, which now goes by the name of *Mweyen*. Thence he proceeded and founded the city of *Thendwè*; and changing his residence once again, he came to *Malí*, and met with the before mentioned queen NÁGA ZEIN, the widow of king BHEINNAKA. Finding her to be of the same *Thakí* race as himself, he married her, and founded the city of Upper *Pagan*. He next rebuilt the ancient city of *Tagoung*, calling it *Pínjalarít*, and *Pínja Tagoung*, or the fifth *Tagoung*, and finally established himself there, assuming the title of THADO ZABOODIPA DAZA YÁZÁ, dividing his followers into classes, organizing an army, and granting titles and honors. The undermentioned line of kings reigned in succession over this new *Tagoung*.

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| 1. Thado Zabudipa Daza Yázá. | 10. Thado ya Haula. |
| 2. Thado Taing ya Yázá. | 11. Thado Poung shí. |
| 3. Thado Yat'ha ya. | 12. Thado Kyouk shí. |
| 4. Thado Tagwon ya. | 13. Thado Tshen louk. |
| 5. Thado Lhan byan ya. | 14. Thado Tshen dein. |
| 6. Thado Shwe —. | 15. Thado taing gyít. |
| 7. Thado Galoun ya. | 16. Thado Men gyí. |
| 8. Thado Naga ya. | 17. Thado Mahá Yázá. |
| 9. Thado Naga Naing. | |

None of these kings reigned long, the country having been much molested by evil spirits, monsters and serpents. The last mentioned king having no son by his principal queen KEINNARI-DEWI, made her brother KHEBADUTA the heir apparent or Crown Prince. At this time the people of *Diniawadi* came to the spot inhabited by the *Pyüs*, and attacked and carried off king TAMBULA, who was of the *Thakí* race, and lineally descended from king MUDUTSEITTA, the son of KAN YAZAGYEE. His queen, NAN KHAN, retired with as many followers as she could to the lake of *Thakya*.

In the 40th year, after GAUDAMA's death, whilst THADO MAHÁ YÁZÁ' the 17th king of *Tagoung* was reigning, an immense wild boar appeared, and committed great destruction in his country. The Crown Prince went forth against the animal, and pursued it for several days,

until he overtook and killed it near *Prome*; and then finding himself so far from home, he determined on remaining where he was as a hermit. Here he was joined by two of his nephews, named MAHA THAMBAWA and TSULA THAMBAWA, twins borne by his sister the queen of *Tagoung*, but being blind, the father had insisted upon their being put to death. The mother, after secreting them for some time, placed them at last on a raft, and set them afloat on the *Erawadi*. The Royal Chronicles give an interesting account of the voyage of the two Princes, who are cured of their blindness by a monster at *Tsagain**, and who at length reach the country near *Prome*, and are recognized and received by their uncle. The *Kanyan* and *Pyús* had quarrelled after the people of Arracan had carried off their king, but the former, being victorious, settled themselves near *Prome* under their queen NAN KHAN, whilst the *Kanyans* retired, and established themselves at *Sandoway* and on the borders of *Arracan*. Through the recommendation of the hermit Prince of *Tagoung*, the queen NAN KHAN married one of his nephews MAHA THAMBAWA, who became king of the *Pyús*, and established the *Prome* or *Thare Khettara* empire, 60 years after GAUDAMA's death, 484 B. C.

After the destruction of the *Prome* Empire, a king THAMAUDDARIT, nephew of the last king of *Prome*, founded *Pagán*; but the country being much molested by certain wild animals, a young man named TSAUDI' destroyed them, and the king gave him his daughter in marriage, and appointed him his successor. He declined the throne however in the first instance, and placed his old teacher YAT'THE-GYÁUNG upon it; and on the death of the latter, the young man ascended the throne of *Pagán* in the *Pagán* era 89, A. D. 167, with the title of PYU' TSAUDI'. But this PYU' TSAUDI', or third king of *Pagán* also is said to have been of the *Tagoung* royal race, and a *Thákí* Prince. His father, THADO ADAITSA YÁZÁ, was lineally descended from the 17th king of *Tagoung*, THADO MAHA YA'ZA', but during his reign *Tagoung* having again been destroyed by evil spirits and monsters, as well as by the Chinese and Tartars, he had quitted the country, and settled with his family in a private capacity at *Malí*, supporting himself as a gardener. After receiving a suitable education, the son PYU' TSAUDI came down to *Pagán*, in order to seek his fortune, and then distinguished himself by killing the wild animals as before-mentioned.

No further mention of *Tagoung* can I find in the Royal Chronicles, until we come to the 6th vol., in which, after being told that a daughter of ATHENKHAYA, the founder of *Tsagain*, was married to THADO TSHEN-DEIN, of the *Tagoung* royal race, and had a son named YAHU'LA,

* City directly opposite *Ava*.

who was seven years of age, when king THEEHAPADE *alias* MEN-BYOK ascended the *Tsagain* throne, and to whom at the age of 16 that king had granted the city of *Tagoung* as a *jaghir*, together with the title of THADO MEN-BYA. We are informed, that in the Burmese year 725, A. D. 1363, when the Shan chief THO KHYEEN BWA came down from *Mogoung* and *Monhyeen* to attack *Tsagain*, his army was first stopped at *Tagoung* by THADO MEN-BYA, but that the Shans soon took that city, and completely destroyed it, its governor flying to *Tsagain* with a single elephant. This governor, THADO MEN-BYA, afterwards took possession of the *Tsagain* and *Penya* kingdoms, and in the Burmese year 726, A. D. 1364, founded the city of *Ava*, and the line of the kings of *Ava*.

Tagoung, after the Shans destroyed it, does not appear to have been restored, and it is now but a village with a few ruins. The district of *Tagoung* is the *jaghir* of the late Wungyee of *Rangoon's* daughter, who is one of the inferior queens, styled *Tagoung Men-thamí*, princess of *Tagoung*. THADO was a title peculiar to the *Tagoung* royal race. It is remarkable, that some of the names in the two lists of the kings of *Tagoung* correspond. The Burmese chronicles give no details of the reign of any of these kings, excepting of the first in each list, and of the last in the second list. One old work, *Zabudipa kwon-gya*, takes notice only of the second list of sovereigns; and states that DAZA YAZA retired from Central India, and came to *Tagoung*, about 300 years before the appearance of GAUDAMA. As the last mentioned, or 17th king, MAHÁ YÁZÁ, is also stated to have ascended the throne 20 years after GAUDAMA's death: this would allow a duration of about 18 or 20 years to the reign of each of the king's preceding, corresponding with the average of king's reigns as fixed by Sir ISAAC NEWTON. The great point with the Burmese historians is to show that their sovereigns are lineally descended from the *Thakí* race of kings, and are "Children of the Sun*;" and for this purpose, the genealogy of even ALOMPRA, the founder of the present dynasty, is ingeniously traced up to the kings of *Pagán*, *Prome*, and *Tagoung*. The countenances of the figures in the accompanying images are very different from those you see in all modern Burmese images†.

* One of the king of *Ava's* titles is *Ne dwet bhuyen*, Sun-descended Monarch.

† They are very nearly of the same character as those found at Sárnáth, and may have been made there or at *Gaya* for exportation, as is the custom to the present time.—ED.

III.—*On the preparation of Opium for the China market: written in March 1835, and then communicated to the Benares and Behár Agencies. By D. BUTTER, M. D. Surgeon 63rd B. N. I. late opium examiner of the Benares Agency.*

1. In committing to paper, for the use of my successor in office, the following observations, I would beg, once for all, to disclaim the idea of their being infallibly correct: for, although they are the result of ten years' attention to their various subjects, I am aware of the disadvantages under which an individual labours, upon whom falls the task of first writing upon any subject involving the discussion of obscure questions, and who is thus deprived of the benefit of the judgment of other persons; and am prepared to find my remarks hereafter greatly modified by the progress of discovery.

2. The great object of the Bengal Opium Agencies is to furnish an article suitable to the peculiar tastes of the population of China, who value any sample of opium in direct proportion to the quantity of hot-drawn watery extract obtainable from it, and to the purity and strength of the flavour of that extract when dried and smoked through a pipe. The aim, therefore, of the agencies should be to prepare their opium so that it may retain as much as possible its native sensible qualities, and its solubility in hot-water. Upon these points depend the virtually higher price that Benares opium brings in the China market, and the lower prices of Behar, Malwa, and Turkey opium. Of the last of these, equal (Chinese) values contain larger quantities of the narcotic principles of opium; but are, from their greater spissitude, and the less careful preparation of the Behar and Malwa, incapable of yielding extract in equal quantity and perfection of flavour with the Benares.

3. It therefore becomes a question, how the whole process of the production of opium, from the sowing of the seed to the packing of the chests for sale, should be conducted so as to preserve with the least injury its native flavour and its solubility.

4. There can be no doubt that the quantity and richness of the milk obtained from each poppy-head depend greatly upon the geological and other physical conditions of the locality which produces it; especially the soil, sub-soil, manuring, and irrigation; and also upon the seed which is employed. But as these matters are, in the present circumstances of the Bengal agencies, little open to choice or control, the first *practical* enquiries which claim our attention relate to the extraction of the juice and its treatment while in the hands of the *koerís*.

5. Of the various processes for the preparation of sugar and medicinal extracts from vegetable juices, it is well known that distillation in

vacuo is incomparably the most efficient in preserving unaltered the original taste of the sugar, and the taste, solubility, and therapeutic powers of the extracts. It is also known that this process owes its superiority to the exclusion of the chemical as well as the physical agency of the atmosphere, to its rapidity of exsiccation, and to the comparative lowness of temperature at which it is performed. When sugar-cane juice, after even half an hour's exposure to the air, is boiled in a narrow deep vessel, and under the pressure of the atmosphere, vaporisation goes on so slowly that the sugar has time to undergo the vinous and acetous fermentations, whereby a certain portion of it is converted into vinegar, before the heat can be raised high enough to check this change; and the high temperature, to which it is so long exposed during this slow vaporisation, chars another portion, and converts it into molasses. Other vegetable juices, under similar circumstances, undergo analogous transformations: much of their substance is converted into vinegar; and the high temperature causes a partial decomposition of the rest: oxygen also is largely absorbed from the atmosphere, and greatly impairs the solubility of the dried extract.

6. On the principles which flow from these facts, it would be, *chemically* speaking, advisable to prepare opium by distilling in vacuo, large quantities of the milk just as it has oozed from the capsules; and I have no doubt that opium thus prepared would possess in an unprecedented degree the desired qualities of solubility and strength, and purity of flavour, as well as narcotic power; and can imagine, that under a system of open trade in opium, this process would be *commercially* profitable. It would, however, be inapplicable under a monopoly constituted as the present system is; and I have mentioned it only with the view of pointing it out as the acme of that perfection in the preparation of vegetable juices to which we can, with our present means, only approximate.

7. That the approximation may proceed as far as possible, it will be necessary, first, that the poppy juice shall at the time of collection, contain a minimum of water; so that its reduction to the proposed degree of spissitude may be effected in the shortest time, and be therefore attended with the least exposure to the air at a high temperature, and with the smallest consequent loss of solubility and of specific qualities that may be practicable.

8. The goodness of the soil, and the management of the irrigation, are circumstances which powerfully affect the strength of the juice at the time of its collection: but a third agent, still less amenable than these to control, now comes into play, the precipitation of *dew* on the

surface of the capsule. When a current of wind, or a cloudy sky, prevents the formation of dew, it is found that the scarifications made in the capsule about the middle of the preceding day are sealed up by the slight oozing of juice, which had immediately followed the incisions; and the quantity of opium obtained is small. When, again, the dew is abundant, it washes open the wounds in the capsule, and thus facilitates the flow of the milk, which in *heavy* dews is apt to drop off the capsule entirely, and be wasted. But when the dew is in moderate quantity, it allows the milk to thicken by evaporation, and to collect in irregular tiers, (averaging one grain of solid opium from each quadruple incision,) which on examination will be found to have a greater consistency, and a “rose-red” (*Werner*) colour towards the external surface, while the interior is semi-fluid, and of a “reddish-white” colour. This inequality of consistence constitutes the *grain of raw opium*, of which I shall have to speak hereafter.

9. In the collection of these drops of half-dried juice, it is very apt to get mixed with the dew, which, in the earlier hours of collection, continue to besprinkle the capsules, and which here does a double mischief—first, by retarding the inspissation of the general mass of the juice; and, secondly, by separating its two most remarkable constituent parts—that which is soluble, and that which is insoluble in water. So little aware, or so reckless, even under the most favourable construction of their conduct, are the *koéris* of the injury thus caused by the dew, that many of them are in the habit of occasionally washing their scrapers with water, and of adding the washings to the collection of the morning: in Malwa, *oil* is used for this purpose, to the irremediable injury of the flavour of the opium. On examining the juice thus mixed with water, it will be found that it has separated, as above-mentioned, into two portions, a fluid and a more consistent; the latter containing the most of the resin, gluten, caoutchouc and other less soluble constituents of opium, with part of the super-meconiate of morphia; and the former containing the gum, some resin, and much of the super-meconiate of morphia, and much of the colouring principle, which, though pale at first, is rapidly affected by light, and acquires a very deep “reddish or blackish brown” colour. Many *koéris* are in the habit of draining off this fluid portion into a separate vessel, and of bringing it under the name of *paséwá*, for sale, at half the price of opium, to the Benares agency, where it is used as *léwa*, (paste for the petal envelopes of the cakes.) Others, after allowing the soluble principles to become thus changed into an acescent, blackened, sluggish fluid, mix it up with the more consistent part of their opium, and bring the whole for sale in this mixed state;

the consequence of which is that they are subjected to a penalty, called *battá upon paséwá*, and regulated by the estimate of the opium examiner, of the quantity of *paséwá* contained. This penalty is the only efficient check upon this most pernicious practice of the *koéris*: for on the generality of the *gomáshtas*, it is difficult to impress the necessity of their looking after the *koéris* during the collecting season. Were *gomáshtas* in general fit for their offices, the name of *peséwá* might be banished from the Bengal agencies; all that is required for that purpose being that they should instruct all their *mahtás* and *koéris*, to exclude dew as much as possible from the opium at collection—never to add water to their opium, then or at any other period; but at the end of their day's collection, to rub it together in a mortar or similar vessel, breaking down the *grain* of it above-mentioned, so as reduce the whole to a homogeneous semi-fluid mass, which should be dried as quickly as possible in the shade, in a current of air free from dust, by spreading it on any clean flat surface, and turning it over ten or twenty times. With this management, one afternoon in the dry collecting season would suffice for bringing to the spissitude of 70 per cent. the collection of each day, which could then be secured, along with the rest of the *koéris*' opium, in a vessel of *any* form, safe from deterioration by internal change. It is a common belief, that all new opium *must* ferment*: but that is a fallacy occasioned by the low degree of spissitude at which opium is generally received at the Bengal agencies, and by the consequent fermentation and swelling up which almost constantly occur, when such opium is allowed to stand for some hours in large vessels.

10. So very large was formerly the admixture of *paséwá* in the opium brought to the Benares agency, that it was thought necessary, for the sake of its appearance, to draw off as much as possible of the black fluid, by storing it, for weeks, in earthen vessels, perforated with a hole. Of late years, there has been a great amendment in this respect, and the draining system has therefore become unnecessary; an event which ought to be followed by the abolition of the inconvenient receptacles in which it was carried on, and by the general substitution of movable wooden cases and drawers in their stead.

11. *Paséwá*, in a pure and concentrated state, is a viscid, dark reddish-brown fluid, transparent in thin plates. Its homogeneous physical constitution prevents its assuming to the eye that appearance of consistency which is presented by ordinary opium. In the former, all

* Dr. ABEL believed that fermentation was necessary for the development of the narcotic principles, and considered the fermentation as of a panary species, in which the gluten played a principal part.

the ingredients are in a state of true chemical combination, with the water contained; while, in the latter, many of the ingredients are only in a state of mechanical mixture, a condition which almost necessarily gives an appearance of solidity beyond all proportion to the actual quantity of solid matter contained. Hence, *paséwá*, and opium containing *paséwá*, are less consistent, and would, to the inexperienced eye, appear to contain much more water than pure opium of the same actual spissitude; a source of much perplexity to any one who tries for the first time to estimate, by the consistence, the real spissitude or dry contents of different samples of opium containing more or less of *paséwá*. A tentative process is the only one by which a person can qualify himself to estimate the spissitude with tolerable accuracy. He should, before allowing the *parkhiyas* to state their estimates of the spissitude, form one in his own mind, and make a memorandum of it, noting his reasons for assigning the degree of spissitude on which he has fixed. The result of the steam-drying test, to which small samples of all opium are subjected in the Benares agency, will then enable him to judge on which side, whether under or over-estimate, he has inclined to err, and to avoid the error in his subsequent operations.

12. The constituents of *paséwá* are in a state of chemical combination; and the slow addition of water will not subvert that condition. But the sudden affusion of a large quantity of water on concentrated *paséwá* instantly resolves it into two portions, a dark coloured fluid containing the gum, colouring matter, and super-meconiate and acetate of morphia, and a lighter coloured powder, consisting of the resin and some gluten, and a minute portion of caoutchouc. In making *léwá*, therefore, from *paséwá*, or from inferior opium, the necessary quantity of water should be slowly added, and thoroughly mixed previously to the addition of more water. Pure opium is liable to the same resolution of its component parts, from the sudden affusion of water: if the latter be slowly added and thoroughly mixed, the gelatinous opium will absorb it, forming a species of hydrate, and will retain its tremulous consistence; but if the water be suddenly added in considerable quantity, an immediate separation of the more and less soluble constituents occurs, and the opium loses its gelatinous and adhesive character. When opium is dried up to a certain point, below the spissitude of 80 per cent., it loses the power of absorbing water without decomposition, and cannot be brought to the gelatinous state. It might be expected, that by adding 30 parts of water to 70 of dry opium powder, we should produce a combination possessing the consistence and other physical characters of fresh standard* opium; but

* So called, because this is the degree of spissitude required at the Bengal

the compound has little *consistence*, and will be found to contain insoluble portions, which have lost their power of forming hydrates with water: yet its *spissitude* remains exactly that of standard opium, the precise quantity of dry opium employed in making it being recoverable from it, but in a darkened and deteriorated condition. The above observations have a practical bearing upon the manufacture of *l'wá*, as has already been noticed, and upon the degree of *spissitude* which opium, either in the hands of the *koérís* or in the agency godowns, should be permitted to acquire: it should be limited to 66 or 67 per cent. for the former, and 70 or 72 for the latter; because, with every additional degree of *spissitude* above this, the solubility is impaired in an increasing ratio.

13. Among some thoughts on the subject committed to writing six years ago, I find the following remark and query: "The whole of the original milky juice will pass through a finer filter than that used by the Chinese in making the extract for smoking: is it possible to dry the opium, retaining its property of such minute division and diffusibility; or is it necessary for the complete separation of the water from the resin, gluten, caoutchouc, &c. that *some* absorption of oxygen should take place, and some consequent diminution of their solubility, or rather miscibility with water?" My reason for noticing this query is the subsequent solution of the proposed problem by M. PREVITE of Calcutta, in the highly similar case of animal milk, which he appears to have succeeded in drying to a powder with no perceptible injury to the diffusibility of its curdy and oleaginous principles. This is the very result that should be aimed at in the preparation of opium for the China market.

14. When the juice of the poppy has been properly dried, that is, rapidly, in a cool shade, and protected from dust, it possesses, at the *spissitude* of 70 per cent., (that is, containing 30 per cent. of water,) the following properties. It has, in the mass, a "reddish brown" colour (*Werner*), resembling that of copper (the metallic lustre obstructed); and, when spread thin on a white plate, shews considerable translucency, with a "gallstone yellow" colour, and a *slightly* granular texture. When cut into flakes with a knife, it exhibits sharp edges, without drawing out into threads; and is tremulous, like jelly, or rather strawberry jam, to which it has been aptly compared. It has considerable adhesiveness, a handful of it not dropping from the hand inverted for some seconds. Its smell is the pure peculiar smell

agencies for the full price allowed by Government. On parcels of opium, inferior to this in *spissitude*, a penalty is levied, called *battá upon consistence*.

of opium, heavy and not unpleasant. In this condition it is said to be "standard" or "*awwal*" opium.

15. When the juice, again, instead of being thus exposed to the air, has after collection been kept in deep vessels, which prevent evaporation, it presents the following appearances. A specimen of it which has the spissitude of only 60 per cent. has the apparent consistence or substantiality of standard opium of 70 per cent. But on minuter examination, it will be found, that this apparent firmness of texture is a deception, resulting from the mechanical constitution of the mass; it being made up with but little alteration of the original *irregular drops* collected from the capsule, soft within, and more inspissated without; this outer portion, as long as it remains entire, giving the general character of consistency to the mass, just as the shells of a quantity of eggs would do. For when the opium is rubbed smartly in a mortar, this fictitious consistence disappears, exactly as that of the eggs, if pounded, would do; and in point of apparent consistence, as well as of real spissitude, it is reduced to the proportion which it properly bears to standard opium. When opium thus retains the original configuration of the irregular drops, it is said to be "*kachá*" or "*raw*:" when these are broken down into the *minute grain* mentioned in the description of standard opium, it is said to be "*pakka*" or "*matured*," whatever may be the actual spissitude of the opium, whether 50 or 70 per cent. An opinion has been entertained, but on what grounds I know not, that the breaking down of this large grain is an injury to the opium: to myself it seems plain that as the large grain *always* disappears before the opium attains the spissitude of 70 per cent. and as this vesicular constitution of the raw opium retards the evaporation of its superfluous moisture, the more inspissated shell of each irregular drop checking the evaporation from its more fluid interior, the object should be to reduce the whole with the least possible delay to a nearly homogeneous mass, in which state the inspissation of opium advances with much greater rapidity.

16. Connected with this subject is a question which has been raised, whether the inspissation of opium stored in large quantities in the agency godowns is effected more quickly, by removing, from time to time, into another receptacle, the pellicle of thick opium which forms on the surface of the mass; or by turning over the mass frequently, and thus constantly mingling with it the pellicles successively formed. As agreeably to the general law of chemical affinity, whereby the last portions of any substance held in combination, and in course of gradual expulsion, are retained with increasing obstinacy, the inspissation of thin, is, *ceteris paribus*, always more rapid in its pro-

gress than that of thick opium; it is clear that the removal of the pellicle, by which opium of minimum spissitude is constantly exposed to the air, must accelerate the inspissation more than the turning over of the whole mass would do: because the latter process exposes to the air opium which is gradually acquiring a greater degree of concentration, and from which the evaporation will gradually be *slower and slower*. As evaporation takes place from the external surface only, it may be proper here to advert to the propriety of making all reservoirs for opium below the standard spissitude as numerous and shallow as may be permitted by the means of stowage; every practicable method being at the same time adopted to facilitate ventilation across, and to exclude dust from, the extensive surfaces exposed; and as little light being admitted as may be suitable to the convenience of the people at work.

17. It might be expected, from the ingenuity of the natives of this country, and from their imperfect notions of fair trade, that they would resort to a great variety of means for increasing, by adulteration, the weight of such an article as opium, in which fraud might be made so difficult of detection. But in fact, it is seldom that they attempt any thing of the kind, beyond keeping their opium at a low spissitude; an act by which, under the present searching system of examination, they cannot profit; and which, from its occasioning a deterioration of their opium through fermentation, entails the levying of a *batta* upon its quality, and therefore, in those cases, an inevitable loss. It is impossible that opium left to itself in the open air, during the parching season of the hot winds, could remain at the low spissitudes of 50 and 60 per cent. at which it is frequently brought to Gházípur towards the end of that season: and we must therefore conclude, that artificial means are resorted to, in order to maintain it in that condition; either the frequent addition of water, or the burying it in a damp piece of ground, which is said to be sometimes done for the sake of security. When these malpractices have been carried too far, the gluten undergoes, in a greater or less degree, the process of putrefaction; the mass of opium first becoming covered with mould, and acquiring an opaque “yellowish grey” colour and a pasty consistence, in which every vestige of the translucency and *grain* of the opium is lost; and the smell becoming venous, sour, and at last abominably fœtid; in which condition the deteriorated opium is fit for none of the purposes of the manufacture, and is always destroyed, and its original value forfeited, by the *koéris*. It is to be hoped that their experience of the unvarying consequences of such folly, and the introduction of a superior class of gomáshrás, will in time convince them of the advantage, as well as

the facility, of bringing in all their opium at very nearly the standard spissitude.

In some cases it would appear, from the fluid state in which they bring it for sale, as if they expected every drop of water which they add to it, to be assimilated and converted into opium. Occasionally, it would seem that they had admitted some suspicions of its having been watered too much; and their only remedy is to drive off the superfluous water by *boiling*: an operation which speedily reduces the mixture to a blackened and charred condition, easily recognized.

18. A more ingenious fraud, but which is seldom practised, is, that of *washing out* the soluble and most valuable part of the opium, and bringing for sale the residual mass. In this process, the opium loses its translucency, and the *redness* of its colour: it loses its adhesiveness also, not adhering to the hand like opium which has not been robbed of its soluble principles; and by these marks, without going further, the fraud is detected. *Sand* is now and then added, to increase the weight; and is at once detected by its grittiness when rubbed between a plate and a spatula.

Soft clayey mud is also, but very rarely, used for the same purpose: it always impairs the colour and translucency; and can, as well as sand, be detected, and its quantity accurately ascertained, by washing the opium with a large quantity of water, and collecting the sediment, which is the clayey mud.

Sugar and *gur*, or coarse molasses, are sometimes employed to adulterate opium: they invariably ferment, and give it a sickly, sweetish, venous, or acescent odour, easily known.

Cow-dung, the pulp of the *dhatúrá*, or thorn-apple, and the gummy resinous juice of the *bél*, or Bengal quince, are seldom met with as fraudulent ingredients: the first may be detected by drying it to a powder, or by washing it with water, either of which processes brings under the eye the undigested shreds of vegetable matter constituting the animal's food; but the two last are extremely difficult of detection, if not added in quantity sufficient to affect the colour and smell of the opium, which generally happens in the few instances of their occurrence. The seeds of the *dhatúrá* are apt to get mixed with the opium, and afford a ready means of detection. A strange, but not uncommon, mode of adulteration is the addition of *pounded poppy seeds*: if reduced to a fine powder, the oleaginous seeds might enter into an imperfect chemical union with the kindred resinoid principle of the opium: but the fraud is never so skilfully effected as to produce this result; and the hard particles of the seeds are perceptible to the touch and sight. *Málwa* opium, though less now than it was

eight years ago, is in general largely contaminated with oil, which is easily separated by dissolving the opium in water ; and I have seen, in a few instances, the same fraud attempted within the Benares agency. As the oil is always in a rancid condition, its presence is betrayed by its odour, as well as by the glistening appearance which it communicates to the opium.

19. By long exposure to the heat of the sun, the texture of opium, whatever be its spissitude, undergoes a remarkable change, through the conversion of part of its gluten into a species of bird-lime. Its *shortness* or property of exhibiting sharp edges, when cut into flakes with a knife, disappears ; and it draws out into long threads.

These two varieties of texture may almost always be recognized in cakes of Behár and Benares opium respectively ; the former being exposed to the sun, in the process of drying the cakes, and the latter not. This diversity of treatment occasions a difference between the hygrometric properties of the cakes of the two agencies ; the Behár cakes acquiring a more speedy but less permanent hardness than the Benares : whereby, though firmer in the shell towards the end of the hot winds, they are more liable than the Benares to soften and lose their shape during the rains. The immediate cause of this difference appears on making a clean section of the shells with a sharp knife. It will thus be found, that in the Benares shells, the *léwá* remains visibly interstratified with the petals, dark-coloured, and tenacious ; while in the Behár, it is in a great measure absorbed by the petals, which are apparently in intimate contact with each other, and is not to be distinguished from them ; the *combination* being more easily effected by hygrometric changes of the atmosphere than the *independent* strata of leaf and *léwá* in the Benares cakes.

20. While, as at present, a considerable amount of inferior opium is produced, not safely applicable to any other purpose than the manufacture of *léwá*, its sacrifice is no great loss. But if *all* the opium brought to the agencies were of good quality, the substitution of some less expensive vegetable paste would be an important desideratum. Any strong cheap mucilage or farinaceous paste, or perhaps some indigenous imitation of bird-lime, would answer for the inner portion of the shell ; and an exterior coating of a resinous, waxy, or oily nature, impervious to water, would defend this from the moisture of the air.

21. In cutting open a cake for examination, the above points should be attended to. It should also be observed whether the external and internal surfaces of the shell are smooth : the former not knotty or fissured, and none of the interior leaves of the latter detached among the opium : there ought, also, to be no vacuities between

the strata of the leaves, such as are sometimes found, lined with mould, in faulty cakes, and the shell altogether ought to be thin, compact, and of equal thickness throughout. The shape ought to be as nearly spherical as possible: that being the geometrical form which under the smallest surface contains the greatest quantity of matter, and which consequently affords the least scope for the extrication of air and ultimate injury to the shape of the cake when that air escapes. Greater attention to having the earthen cups, in which the cakes are dried, *perfectly* hemispherical, instead of parabolical as they now are, would contribute to the desired sphericity.

22. In opening a cake, the next thing to be attended to is the manner in which the two hemispheres of the opium separate: the Behár will be found to retain its *shortness*, while the Benares draws out into threads. The smell should then be attentively observed and noted down, being strongest immediately after the opening, and giving at that instant the fairest indications of the state of the opium with respect to preservation; the pure narcotic, venous, or acescent odour being then most strongly perceptible: in this respect the Benares will generally prove superior to the Behár. It is an important character; for the Chinese are great epicures in the flavour of opium, and object to it when it smells at all sour.

23. The surface of the opium should then be narrowly inspected, and the tint and shade of colour, both by reflected and transmitted light, noted down, in terms of Werner's nomenclature; also the apparent quantity of *paséwá* if any be present, which is almost constantly the case with Behár opium, where it appears like dark glistening fluid, lining the little cells in the surface of the opium. As the depth of the colour of opium in the caked state depends on the quantity of *paséwá* in it, or the degree in which it has been deteriorated by exposure to the sun, the lighter the shade, the better is the opium.

24. The chemical analysis of opium, after all the trouble that has been bestowed on it, is still in an unsatisfactory state. A perfect analysis, such as we possess of Peruvian bark, and of some other medicinal plants yielding vegetable alkalies, ought to eliminate the whole of the active principles, leaving nothing at its close but an inert mass possessed of no therapeutic power: and the essential principles thus obtained should equal (or, as in the case of quina freed from its bulky fibrous accompaniment, surpass) in activity, a quantity of the original substance equal to that from which it was extracted. But how greatly inferior are the powers, over the animal economy, of a grain of morphia, in whatever state of purity or saline combination, to the quantity of opium that is required to furnish that single grain! Yet, for all that

we can, chemically, see, we obtain by our analysis the whole of the morphia that is contained in opium. I suspect that the narcotic power is partly lodged in some unknown substance (not narcotine) insoluble in water : for I have, after careful and repeated washing, until it ceased to colour the water, found the insoluble residuum to act as an opiate with considerable energy. Although morphia, in a state of purity, can, like sulphur, be fused without change ; yet, when in combination with the other constituents of opium, it is partly destroyed by a much lower degree of heat, greatly under that of boiling water ; for the pharmaceutical and Chinese extracts are found to contain very little morphia : still, the former, as is well known, exert great medicinal power, out of all proportion to the quantity of morphia which analysis evolves from them. From all these considerations it would result, that the proportion of morphia obtained, by the analysis at present known, cannot be regarded as a true exponent of the total narcotic power of the opium which yields it. An additional source of fallacy in comparing the produce of different countries exists in the varying proportions which they contain of colouring matter or extraction ; a principle for which morphia and narcotine have a strong affinity, forming insoluble compounds* with it ; and which, as well as narcotine, is much more abundant in Indian than in Turkey opium. Hence a considerable loss in the purification of morphia from the former, and an apparent, and probably real, inferiority in its quantity ; although we know that good India opium is equal to Turkey in narcotic power.

25. ROBQUET's process is the one employed by the opium examiner in Calcutta. The chief precautions necessary to ensure success and uniformity in its results are, not to use too much water at first ; to see that the magnesia is brought to a red heat ; not to expose any of the subjects of analysis to the sun, or to artificial heat, except in the washing and final solution in alcohol of the morphia ; not to use too strong a spirit in washing the morphia and excess magnesia ; and to employ the strongest alcohol for its final solution before crystallization. SERTUERNER's process is useful where it is not necessary to obtain the morphia in a separate state : and in practised hands affords speedy and tolerably accurate information. It is probable that ROBQUET's process will in time be superseded by that of the late Dr. WILLIAM GREGORY of Edinburgh, which does not acquire the expensive use of alcohol, and yields more morphia, by 30 or 40 per cent. ; affording, in fact, the cheapest medicinal preparation known of Turkey

* This may partly account for the medicinal activity of the mass of opium above noticed.

opium. It consists in the exhaustion of the opium with water under the temperature of 90° ; concentration of the solution at a low temperature; precipitation by slight excess of ammonia; elutriation of the precipitate with cold water; exsiccation of it at a temperature below 212° , and reduction to powder; solution in cold water by muriatic acid, slowly added in slight excess; filtration and concentration to the consistence of syrup; after which, the preparation on cooling, becomes a mass of crystals of muriate of morphia, moistened with a dark-coloured solution of uncrystallizable muriate of narcotine and resinoid colouring matter. This solution is abstracted from the crystals by strong pressure between folds of bibulous paper; and the solution, crystallization, and expression repeated once or twice; after which, the salt is obtained in radiated bunches of snow-white silky crystals, containing 37 parts of muriatic acid and 322 of morphia. But for the unfortunate super-abundance of narcotine, and comparative paucity of obtainable morphia, in Indian opium, the manufacture of the muriate on a large scale might advantageously be established, at one of the Bengal agencies, for the supply of the Indian medical department with this admirable preparation, the marc (?) of which would be available for the manufacture of *léwá*.

26. Connected with the subject of analysis is another which claims some attention from the opium examiner, the accuracy and sensibility of the weights and balances used in his department. Neither of them should ever be allowed to be soiled with opium; and the former should occasionally be compared, to see that all weights of similar denominations mutually correspond within one-tenth of a grain, and that the larger and smaller weights are equally accurate multiples and sub-multiples of each other. The knife-edges of the balances should occasionally be sharpened, so that they may turn with as little friction as possible; and the three points of suspension, whenever deranged, should be brought into a perfectly straight line, by bending the beam with the hand: if the centre edges be too low, the balance will, when loaded with its proper weights, be in a state of unstable equilibrium, and will cause great mistakes; and if they be too low, the balance will lose its sensibility, and cannot be depended upon within perhaps two grains. Care should also be taken that the distance from centre-edges to arm-edges are exactly equal; from accidental violence, this element of accuracy is very apt to be deranged, and causes great confusion when overlooked.

27. Were all the opium brought for sale unexceptionable in quality, free from *paséwá*, and liable to battá on account of deficient spissitude only, there would be, supposing the batta levied with tolerable accuracy, little difference at the end of the manufacturing season, between

the registered receipts and expenditure of opium: and, supposing it levied with *strict* accuracy, there would be a small loss, occasioned by accidental spilling of semi-fluid opium, adhesion to the persons and clothes of the work-people, and other unavoidable sources of wastage. But as, in the present state of things, batta to a considerable amount is levied on quality, the effect of its deduction, if not kept separate from the battá on spissitude, would be to shew, at the end of the year, a deceptive deficiency of receipt compared with expenditure. Battá upon quality, or *paséwá*, therefore, should not be admitted into the godown accounts; and should be confined to the account between the receiving-officer and the *koérl*.

28. There are no satisfactory experimental means, except perhaps by the specific gravity, of ascertaining the precise quantity of *paséwá* in opium. It will hardly drain at all from opium of higher spissitude than sixty per cent. and not readily from opium of even that spissitude, unless assisted by a slight fermentation, which greatly facilitates its flow: the *paséwá* trickling down the sides of the air-vesicles thus formed. The only convenient rule for the adjustment of battá upon *paséwá*, or upon quality generally, is, that absolute *paséwá*, if not too thin, and the worst opium purchased for the Company, being paid for at half the price of standard opium; for different grades of inferiority in quality between those two conditions, as fair a gradation of penalties shall be fixed, as can be formed from an estimate of the sensible qualities.

29. It has been thought, that specific gravity might prove an accurate index of the spissitude of opium; which is, however, not the case; its soluble principles, and that portion of its insoluble constituents which, slightly modified, unite with the soluble in forming *paséwá* acquiring in their transition to this altered state, a considerable increase of density. Opium, therefore, containing *paséwá*, is much heavier than an equal *bulk*, at the *same* spissitude, of pure opium. I have found this condensation to bear same proportion to the quantity of *paséwá* apparently contained: and it might, probably be found to indicate with considerable accuracy the proper amount of battá to be levied for *paséwá*, were such nicety desirable or conveniently attainable.

30. The Regulation of Government, which requires Civil Surgeons to report upon the relative values of parcels of confiscated opium, according to the quantity of foreign matter which they may contain, is obscure on two important points: 1st, whether, and beyond what degree of thinness, *water* is to be considered as foreign matter; and, secondly, whether and beyond what degree of deterioration,

fermented and *paséwá*, converted opium, when contained in the contraband article, are to be considered as "foreign matter." I have been in the habit of regarding them as foreign, when the water exceeded 30 per cent., and when inferiority in quality was palpable; because a different practice would defeat the end, for which the regulation was framed, of securing a fair reward to the informer. Under a less strict interpretation of the rule, he would be tempted to double the weight of the seized opium, and consequently his own reward, by adding to it, a sufficient quantity of water, or of bad opium, such as may at all times be clandestinely purchased for a trifle in the poppy districts.

IV.—*Catalogue of a Second Collection of Fossil Bones presented to the Asiatic Society's Museum by Colonel COLVIN.*

[Exhibited at the Meeting of the 6th April.]

Colonel COLVIN's first dispatch consisted of six large chests of fossil bones, in their rough state, attached to the matrix rock, as they were originally brought in from the hills by the native collectors employed by him to dig. They still remain unclassified in the museum, but the detailed examination that has been given to the second dispatch by Lieutenants DURAND and BAKER, whom experience has already made expert in recognizing fragments, even much mutilated, will materially assist in arranging the former specimens, while it leaves little to be done with the present beyond publishing their catalogue at once for the satisfaction of geologists, and preparing the specimens for the inspection of visitors. There are among them many noble fragments of known animals, which challenge comparison with those of any collection in Europe: these it will be a first object to make known by accurate drawings or by plaster casts. There are also numerous skulls, jaws, teeth, and bones decidedly new to fossil osteology, but the admirable fidelity and scientific knowledge with which the major part of these is now under illustration by Dr. HUGH FALCONER and Captain CAUTLEY, in the Asiatic Researches, from their own, even more extensive, cabinet, supplants the necessity of attempting a full investigation here. All points in which differences from their generic or specific descriptions are recognized, it will be the duty of our curator to bring to notice.

The synopsis published in the Journal for December last, page 706, comprised the varieties of organic remains, up to that period extracted from the upper deposits of the tertiary strata of the *Siválik* or *Sub-Himálaya* range of hills. Most of the same are to be found in Colonel COLVIN's collection. Some recent additions of a highly interesting

nature have however been made above, of which I have been apprised in my private correspondence with Seháranpur.

Lieutenant DURAND has just dug out a nearly perfect head of a *Palæotherium*, from the vicinity of the spot whence Captain CAUTLEY had previously extracted the *Anoplotherium* of CUVIER. The Dadúpur museum possesses a fragment "of the lower jaw of a huge new animal: the teeth not sufficiently perfect to determine its nature: it is probably of some grand new pachydermatous animal, equalling the elephant in size." Both the rhinoceros and the camel have characters of indubitable variation from known species. Of both these, notices are now in preparation. The acquisition of fossil birds was noticed at the meeting of March: Dr. FALCONER supposes them to be bones of large *Grallæ*. This is, as he says, a fair test of the justice he and his fellow labourers are doing to the enquiry: it is not every museum in Europe that has fossil birds to shew! A note this moment received announces the acquisition of "a superb specimen of gigantic size of an unknown species of crocodile: it forms an intermediate section in the genus between the true crocodile or *magar*, and the *leptorynchus* or *gharial*. The muzzle is cylindrical, as in the latter, but greatly shorter; and the teeth are thick and shorter, as in the *magar*: they protrude in relief above the jaw three inches, and are 1 inch and 2 lines in diameter!" There is also in Col. COLVIN's collection a Saurian head, apparently new.

I have ventured to alter the numbering of the catalogue, to save repetition, by bringing bones of the same animals together, the original having been written out by Lieutenant BAKER just in the order they came to hand. It will be observed, that great pains have been taken to unite together with cement specimens which were broken in extraction, and in clearing them from matrix. The necessity of the latter operation will be acknowledged on perusal of the following extract from Colonel COLVIN's note to me of the 4th October last. "The quantity I found collected here on my return, and what had to be brought in proved to be so great, that in the matrix they would have loaded a boat; during the rains, therefore, I employed a number of people to clear them, and though a vast number have thus been rejected as superfluous, or too mutilated to be useful, still a great deal has been packed that might perhaps have well been left behind, had I not feared to attempt a selection." The same letter adds:—

"I have been unfortunate in not meeting with specimens of teeth of the *Sivatherium*, or complete heads of the hog. I had one lower end of the radius of what appeared to be the camel, but as a few specimens also deemed "camel" had come into the Dadupur museum*, I made

* Since certified by the discovery of an entire head.

over this bone to it with the view of identification, and should the further search prove successful, you will receive specimens of the animal from Lieutenant BAKER.

“The clearing away of the matrix, besides rendering the specimens less cumbrous for transmission, enabled, I should hardly say *us*, for it was my young friend, here to give names to most of what are now sent. The locality of each I found it impossible to particularize, as the parties, whom I sent out to collect, ranged about in the lower hills, picking up whatever they found, and heaping all together, until they had amassed several cart loads; but the eastern limits of their search were the branches of the *Sombe*, which are about due south of the *Chûr* mountain; and to the west, their search extended to about half way between *Náhan* and *Pinjór*. The only distinction worth noticing is, that the hard or brown fossils (those mineralized with hydrated oxide of iron) did not come out of the same stratum as the blue and friable (calcareous) ones; the latter being from the west of *Náhan*. You will perceive the difference of the matrix on several of the specimens only partially cleared. I have never had leisure to visit the sites myself, and would therefore add nothing on this subject until I shall have enjoyed the opportunity of a personal inspection.”

The Society will doubtless be eager to do every honor to the munificent donor of these splendid fossils, if it has any real wish to acquire the reputation of possessing a valuable museum. The foundation of our fossil collection was but laid four years ago, and already through the contributions of Colonel BURNEY, Dr. SPILSBURY, Captain SMITH, Mr. DEAN, &c. now enriched by Col. COLVIN's vast store of specimens, it has become necessary to devote an entire apartment to this instructive department of natural history. Our smallest return of gratitude to those who have been at such considerable expence in promoting the Society's interests, will be to do honor to what has been so generously bestowed, by making up fit cabinets to exhibit them to the best advantage, and by spreading the knowledge of them as expeditiously and widely as possible.

J. P. Sec.

Catalogue of Colonel Colvin's Fossil Bones.

MASTODON ELEPHANTOIDES.

- 1 Upper jaw, very perfect.
- 2 ———, fragment.
- 5-6 Lower jaw, part of the right half.
- 7 ———, ditto left half.
- 8 Symphysis of ditto, (or of elephant.)
- 11 to 26 Fragments of molars, of both jaws.
- 31 Axis of a large mastodon (?) very perfect.
- 32 Cubitus, upper extremity, with olecranon.

MASTODON LATIDENS, identified with Elephantoides, FAL.

- 36 Lower jaw, right half.

ELEPHAS PRIMIGENIUS.

- 41 Upper jaw, right half.

- 42 to 47 Lower jaws, left half, and fragments.

- 48—49 ———, right half.

- 50 ———, left half of a younger animal.

- 51—56 Molars, fragments of.

- 57 59 ———, of smaller animals.

- 60 Upper jaw of a small animal, much mutilated.

- 61 to 80 Tusks, fragments of various sizes.

- 81 Femur, upper and (? mastodon).

- 82—87 ———, lower end.

- 88—91 Humerus, upper end.

- 92—95 ———, lower end.

- 96 Cubitus, upper extremity.

- 97 Tibia, perfect specimen.

- 98—101 ———, upper extremities.

- 102—104 Calcaneum.

- 105 Axis, of very large size.

HIPPOPOTAMUS.

- 111 Cranium.

- 112 Upper half of the head, very perfect in bone.

- 114—117 Upper jaw, perfect, and fragments.

- 119—123 Lower jaw, in various preservation.

- 124 Fragment of ditto, with two central incisors.

- 125—126 Condyles of ditto.

- 127—129 Fragments of molar teeth.

- 130 135 Canine teeth, fragments of upper.

- 136 ———, of lower jaw.

- 140 Pelvis, fragment of the.

- 141—143 Femur, lower extremity.

- 144 Cubitus, upper extremity, with olecranon.

RHINOCEROS.

- 150 Upper jaw, fragment.

- 151—153 Lower jaw, fragments much mutilated.

- 154 Teeth, three fragments of molars.

- 155 Axis, doubtful.

- 156—8 Scapula, three fragments, doubtful.

- 159—163 Humerus, upper extremity.

- 164 ———, lower extremity.

- 165 Cubitus, upper end.

- 166—169 Femur.

- 170 Radius.

- 171 Tibia, with tarsal and metatarsal bones attached.

- 172—175 ———, fragments.

- 176—180 Metatarsal entire.

- 177—179 Metacarpus.

- 180 Calcaneum, perfect.

- 181 Astragalus, perfect.

SUS.

- 182 Right jaw of some animal of this genus.

Bones of Pachydermatous animals not classified.

- 185 Lower jaw of a small animal.

- 186 Molar teeth, much mutilated.

- 187—210 Vertebrae, cervical; 191, process of dorsal, 192.

- 212 A very large specimen of do.

- 213—219 Humerus, fragments of lower extremity.

- 220 Femur, upper extremity of.
 221—223 Condyle of do.
 224—229 Tibia.
 230—232 Radius, lower extremity.
 233—235 Carpus and tarsus.
 236 Metacarpus, small.
 237—238 Metatarsus.
 239—246 Phalanges.
 247—248 Astragalus.
 249—250 Omoplate; socket of do. 251—253.
 251 Pelvis; socket of do. 252.

HORSE.

- 260 Upper jaw, attached to the humerus of a rhinoceros, &c.
 261—264 Molar teeth.
 265 Atlas?
 266 Femur, lower extremity.
 267 Radius, ditto.
 268 Cannon bone.
 269 Astragalus.
 270—271 Phalanges.

Bos.

- 280 Head of some species of ox.
 282 Left upper jaw, fragment of.
 283—289 Lower jaw, fragments.
 290—293 Molar teeth.
 294—295 Femur, upper extremity.
 296—297 Horn, fragments.

ANTELOPE.

- 300 Head and horns, portion of the.
 301 Occiput.
 302—303 Upper jaw.
 304 Lower jaw, or of a small deer?
 305—306 Posterior part of head, (or of a deer?)

DEER.

- 310 Upper jaw, molars enveloped in matrix.
 311 Ditto of smaller animal.
 312 Lower jaw, with metatarsal attached—alone 313, 314.
 316 Left lower jaw of young animal with milch teeth.
 317 Posterior molar of large deer: smaller 318.
 318 Germ tooth (?)
 319—321 Antlers, fragments of.

Bones of various Ruminants, unidentified.

- 325—326 Cranium with occiput.
 327 Lower jaw, back part, large animal.
 328—344 Molars of a large animal, 345.
 345—353 Cervical vertebræ, small: three connected, 359.
 360 ———, of a gigantic ruminant. (? *Sivatherium*.)
 361—364 Dorsal vertebræ.
 365 Lumbar vertebræ.
 366—367 Sacral vertebræ.
 368—372 Very large vertebræ.
 373 Axis.
 374—375 Atlas, large, one broken.
 376—379 Scapula, glenoid cavity of, 380.
 380—383 Humerus, upper extremity.
 384—406 ———, lower extremity.
 407—409 Femur, fragments.
 410—429 Tibia.

- 430—439 Radius, upper extremity.
 440—449 ———, lower extremity.
 450 ———, with carpal and part of metacarpal.
 451 ———, perfect, with part of ulna, fragments, 452.
 453 Calitus.
 454—466 Carpal and tarsal bones.
 467—527 Metacarpal and metatarsal bones.
 528—537 Astragalus.
 538—551 Calcaneum, very large.
 552—562 Phalanges.
 563 Ribs, fragment of.

HYÆNA.

- 600 Upper jaw, in good preservation.
 601 Canine and 1st molar of do.
 602 Lower jaw, entire, and fragment, 603.
 604 Cranium.
 605 Three molars of some canine animal.
 606 Metatarsal bones of some carnivorous animal.

SAURIAN.

- 700—717 Vertebræ of Saurian reptiles.
 718 Cranium of *Ghorial*.
 719—724 Plates of crocodilidæ.

Besides about 120 fragments not identified, received with the second dispatch; the whole of the first donation unregistered, and some gigantic testudinous plates, presented by Col. COLVIN personally while in Calcutta.

GIGANTIC ELK, (presented by Mr. Conductor W. DAWE,) found in the *Ganawer Khúl*, near the *Haripál* branch of the *Sombe* river.

- D 3 4 Portions of the antler.
 D 5 Axis of second cervical vertebra.
 D 6 Cervical vertebra of do.

BUFFALO? presented by the same.

- D 1 Head of bos or buffalo with one horn.
 D 2 Piece of horn, supposed to belong to the same.

V.—Notice of a Visit to the Valley of Kashmír in 1836. By the Baron
 HUGEL.

[Read on the 6th April.]

On my way to Bombay to embark for Europe, I take the liberty of addressing you a few lines, requesting your doing with them what you think best: they relate to my journey to Kashmír. I was in hopes of being able to send you a more elaborate memoir, but my time is very much limited, that I am afraid of postponement, and hasten rather to offer you a few notes as they were collected. I understand that Mr. JACQUEMONT's travels are now published. I think therefore that it may be of some interest to the Indian reading public, to have before it some observations, not influenced by the above mentioned work, made by a traveller a few years later, to compare them together. As

before a regular publication of my residence in 1835 can be made in Europe and reach India, that of Mr. JACQUEMONT will have lost much of its interest as a new topic, I do not hesitate to come forward with my notes in their original form, how unfavourable to them it may be.

Kashmír in a political and financial point of view, has been much over-rated : not in a picturesque one. The valley in its length, from N. W. by W. to S. E. by E. is little more than 80 miles long ; the breadth crossing the former line, varying from 30 miles to 6. I speak of the actual plains : from the eternal snow of the Pír Panjáhl to the Tibet Panjáhl are 50 to 60 miles : both ranges run nearly parallel in the first direction, with a great number of peaks. The height of the passes from Bimbar to Kashmír, and that from Kashmír to Iscardo is the same, 13,000 feet ; the highest point of the Pír Panjáhl, 15,000 feet by the boiling point. The city of Kashmír 6,300 feet* ; Kashmír town, Daláwer Khán Bagh on the 19th November, gave meridional altitude $72^{\circ} 4'$, artificial horizon, which shews its northern latitude to be $34^{\circ} 35'$.

Population.—Four years ago about 800,000 ; now not exceeding 200,000. The valley is divided in 36 perganahs, containing ten towns and 2,200 villages. Kashmír town contains still 40,000 inhabitants ; Chupinian, 3000 ; Islámabád and Pámpur, 2000. It was not the bad administration of the Sikhs, but a famine brought on by frost at the time the rice was in flower, and cholera in consequence of it, that reduced the population to one fourth of the former number by death and emigration : many villages are entirely deserted. Chirar town contains now 2000 houses and only 150 inhabitants !

Revenue.—Last year very nearly nothing, RANJIT SINGH wishing that the country should recover : this year (1836) he asks 23 lakhs from the Governor MOHAN SINGH, which the country cannot give. The emigration has brought to the Panjáb and Hindustán many shawl manufacturers, and Kashmír will most likely *never* yield again what it did a few years ago. Núrpur, Lodiána, and many other places can bring to the market shawls cheaper than Kashmír, where every article of food is dearer than in the Panjáb and Hindustán.

Twelve passes, *Pansahl* in the Kashmír language (from which Pír Panjáhl of the Musalmans) now exist ; three to Tibet (Iscardo and Ladak) ; eight to the Panjáb ; one to the west. In former times there were only seven : the defence of which was entrusted to Malliks with hereditary appointments : four passes are open the whole year : one to Ladák, the western pass, (Baramulla,) and two to the south.

* Three thermometers brought it very near to the same height.

Wuler lake is 30 miles from E. to W.

Brahmans, the only Hindús in Kashmír, 25,000 in 2000 families ; they are Vishnuvaites and Sivaïtes, divided into three divisions, who all intermarry : they are darker than the other inhabitants, owing to a colony sent for from the Dekhan about 800 years ago, after the aboriginal Brahman race was nearly extinguished by the persecution of the Muhammedans.

There is not in the valley the slightest appearance of its having been drained : the pass through which the Jhelum found its way is one of the most beautiful of the world : its bed 1000—1500 feet deep : I do not believe more in the traditions of the Kashmírian Brahmans than in the fables of Manethon.

All the remaining temples are Bauddha, of a different shape from any I have ever seen ; only one small one reminds me of the caves of Ellora : I have observed no Dagoba. Korán Pandan, near Islámabád, Anatnagh of old, is not only the largest ruin of Kashmír, but one of the splendid ruins of the world :—noble proportions ;—material black marble. I was nearly led into error, at first thinking its form Grecian. The building had nothing on a closer examination which could justify such a hypothesis. Very few temples remain in Kashmír in tolerable preservation, having mostly been destroyed by a fanatic Musalman*, whose zeal did not succeed in overturning them all.

The only trace of fossil remains in the valley is in a limestone, which contains small shells.

Nature has done much for Kashmír, art more ; the whole valley is like a nobleman's park : the villages, being surrounded with fruit trees, and having in their centre immense plane and poplar trees, form large masses, having between them one sheet of cultivation, through which the noble river winds itself in elegant sweeps.

The botany of Kashmír is not rich, and is very nearly allied to that of the Himálaya, between Massuri and Simlah : in the valley itself not a plant is to be seen of indigenous origin : the northern declivity of the mountains is rich in vegetation, the southern steep and barren. The Chunar is the *Platanus Orientalis*, which so far from being a native of Kashmír does there produce no germinating seeds, and is multiplied by cuttings, which, since the Moghul Emperor, have not been kept up. It is a very extraordinary phenomena to witness the *Nilumbium speciosum* growing where the orange tree is destroyed by frost. *Misri yaleb* is not a native of Kashmír.

I made a remark on the Pir Panjhál, which I afterwards had occasion to observe several times, and which is new to me : that the freez-

* Sikandar, Bhutshikan, A. D. 1396.

ing point on the thermometer advances at great elevations in a similar proportion as the boiling point retrocedes : thus the water boiling for instance with 191, the sun with 44 degrees Fahr., did not make any impression upon a piece of ice lying on a black soil, the latter not being moistened*. This must be the case, although I do not recollect to have seen it mentioned : on a certain height above the surface of the globe, the freezing point and the boiling point must meet†, heat and cold being phenomena belonging exclusively to our globe. My observations led me to believe, that this may be at 84,100 feet above the surface of the sea, or in other words that there finishes our atmosphere.

The burning gases at Jwalamukí are of a very extraordinary nature, nothing of sulphur or naphtha in them. They have a most delicious smell, something like a French perfume with ambergris. The flames, about 10 in number, come out of a dark grey sandstone on perpendicular places : temples are built over them : I attributed the effect to priestcraft, until in one of the temples called Ghurka Debi, I was allowed to try experiments, and remained alone : I blew out the flame, which did not re-ignite from itself : there is nothing particular on the places where the flame came out : no change in the colour or substance of the stone, or in its hardness. Water in small quantity is formed in little reservoirs under the flames, being the produce of them : this water takes fire too from time to time, when enough inflammable matter is collected on the surface. I took a bottle of it for you, which Captain WADE will be so kind as to forward to you for examination‡ ; it has however now undergone a terrible alteration by putrefaction, and I am afraid that you will not be able to analyse it. The taste of it when fresh can distinguish nothing of its composition : it is not unpleasant to drink, and of a milky-greenish colour. No traces of volcanic matter near it.

I have picked up many coins, which appear to me new ; of some I am certain : those of the Kashmírian kings, of the Bauddha time, found near the town Bij Bahara (no doubt a corruption of *Vidya vihara*, temple of Wisdom, if my Sanscrit does not forsake me) : I intended sending them to you, but they found their way in one of my tin boxes : I cannot guess in which, and for this reason do not open them : whenever I come to them I shall send you them, or their exact likeness.

* The explanation of this circumstance should rather be sought in the dryness of the air at such an elevation ; and the consequent rapid evaporation which carried off the ice as it melted—ice itself will, it is well known, wholly evaporate in a vacuum.—ED.

† By DALTON's tables, the aqueous tension of freezing water is 0.20 inch ; therefore water will boil and freeze together at a height of 130560 feet, or about 25 miles.—ED.

‡ This had not yet reached us : nor the coins, which we desire much to see.—ED.

VI.—*Note on an Inscription at Bamyán. By Mr. C. MASSON.*

[Read at the Meeting of the 6th April.]

Of the antiquities of Central Asia, the Idols at Bamyán have long been known and celebrated in Europe. To ascertain their character is still a desideratum. An inscription found in so fortunate a situation, as at the summit of the niche in which stands the larger, and by inference, the more ancient of the idols directly over its head, will, if capable of being interpreted, dispel much of the mystery attaching to it and its associates. It contains but six characters as here exhibited*, appears to be entire, and although the copy of it was taken four years since, I think its fidelity may be depended upon.

When in possession of Mr. PRINSEP's plates of the Pehlevi Alphabets, this inscription was compared with them, and its characters appeared to me to approach nearest to those of the Pehlevi of Sassanian coins from MARSDEN. Observing the apparent recurrence of the two first letters, and concluding that the alternated characters must be consonants and vowels, of the latter of which A was the more likely to be used as the more common, I sought its equivalent in the Pehlevi alphabet noted, and found it might be expressed by ω . Marking also the number of the characters of the inscription, in union with the duplication seemingly of A or U, the word NANAIA occurred to my imagination, and attempting to write it in the Pehlevi of the alphabet, I produced

𐬨𐬀𐬨𐬀𐬨𐬀

The first five letters were so similar to those of the inscription, that I judged I might without imputation of temerity bring the circumstance to notice; and as for the final letter, if we are pretty sure of all the preceding ones, we may reasonably be satisfied with that also. The α of the alphabet, or γ has indeed a γ , or doubt, attached to it, while the final letter of the inscription resembles the A or α of other alphabets.

The idols of Bamyán, perhaps less ancient than many of the caves or temples there, have not an antiquity beyond the reach of verification, and while we pause whether or not to ascribe them to the princes we call Indo-Scythic, we dare affirm that they were constructed during the period of the Sassanian sway in Persia, or 220 A. D., and the era of Muhammedanism.

Kábul, 1836.

C. MASSON.

* See Plate VI. fig. 1; we confess the similitude of the marks, which Mr. MASSON takes for letters, to the Pehlevi alphabet is but just sufficient to hazard a conjecture upon. *Nanaia*, a female, would not be applicable to a male figure:—*Nanao* or *Nanano* (junus) would be more consonant with the Pehlevi, and even with the form of the supposed letters.—ED.

VII.—*Proceedings of the Asiatic Society.**Wednesday Evening, the 6th April, 1836.*

G. J. GORDON, Esq. Senior Member present, in the chair.

Lieut.-Col. CAULFIELD, was proposed as a Member of the Society by Mr. JAMES PRINSEP, seconded by Mr. PIDDINGTON.

Mr. J. S. STOPFORD requested that his name might be withdrawn from the Society. Mr. STOPFORD had deposited 80 Rupees with the Secretary, to cover the cost of four volumes unfortunately lost by the wreck of his pin-nace, until they shall be replaced from England.

Read letters from Lieut. A. CUNNINGHAM, Engrs., and Rāja VIJAYA-GOVINDA SINGHA, acknowledging their election as Members.

Also, from Professor T. ROSEN, acknowledging his election as an Honorary Member.

A private letter from M. EUG. BURNOUF, Secretary to the Asiatic Society of Paris, noted the arrival of the 100 vols. of the Tibetan Kahgyur, and of the other dispatches sent by General ALLARD.

Read letters from the Secretaries to the British Museum, and the Royal Asiatic Society, returning thanks for the Tibetan Dictionary and other works.

Extract of a letter from Professor WILSON, intimated the distribution of the Tibetan works sent home for the various continental learned societies. It also reported that a portion of the MOORCROFT papers had been finally placed with MURRAY and Co., for commencement of publication.

Professor WILSON estimates that the whole will occupy, when re-written, and shorn of repetitions and redundancies, two octavo volumes. The terms agreed upon are, that 50 copies are to be at the Society's disposition. Any final loss on the publication to be made good by the Society: and the relations of the author to participate in any success.

Read a letter from M. CSOMA DE KÖRÖS, saying that although the fac simile from Iskardo, taken by Mr. VIGNE, was evidently Tibetan, it was in too imperfect a condition to be decyphered.

Library.

The following books were presented to the Society :

A copy of the Appendix of the third volume of the Transactions of the Royal Asiatic Society—*by the Society.*The Journal of the Royal Asiatic Society, No. 4—*by the Society.*A children's map of the world in Bengali—*by Rāja Kālikrishna.*A daily register of the tide in the harbour of Singapur, from 1st Sept. 1834, to 31st Aug. 1835—*by the Government.*Meteorological Register for the months of January and February, 1836—*by the Surveyor General.*The Indian Journal of Medical Science—*by the Editor.*

The following received from the book-sellers :—

The Political and Statistical History of Guzerát, translated from the Persian by JAMES BIRD, Esq., and published by the Oriental Translation Fund.

Lardner's Cabinet Cyclopaedia—*Literary Men, vol. 2nd.*

The following letter from the Minister of Public Instruction in France, addressed to the President, was read :

“ *Paris, le 24 Juillet, 1835.*

“ Monsieur le Président, La Société Asiatique de Calcutta, en mettant à la disposition de feu M. VICTOR JACQUEMONT, tous les matériaux scientifiques qu'elle possédait, lui a donné les moyens de rassembler des documens d'un haut intérêt sur les Indes Orientales.

Eu témoignage des services rendus à notre compatriote, je vous prie, Monsieur le Président, de vouloir bien faire agréer à la Société de Calcutta un exemplaire de l'ouvrage qui se publie en son nom, par les soins de sa famille et sous les auspices du Gouvernement Français.

Je tiens à votre disposition, Monsieur le Président, les livraisons qui ont déjà paru : Vous pourrez les faire retirer du Dépôt des Livres de Souscription au Ministère de l'Instruction publique par tel moyen que vous jugerez convenable.

Ageréz, Monsieur le Président, l'assurance de ma haute considération.

Le Ministre de l'Instruction publique,

GUIZOT.”

Resolved, that the President be requested to return thanks for this mark of consideration in the French Government, and that the Secretary take immediate steps to obtain possession of the work in question.

The Secretary announced the transfer and deposit in the Society's rooms of the Sanscrit, Persian, Arabic, and Hindui Manuscripts from the College of Fort William.

The number of the Sanscrit works is 1130 volumes : of the Arabic and Persian 2676 volumes. A *catalogue raisonnée* of the whole had long since been prepared by the College officers, of which the meeting resolved it should be recommended to the Committee of Papers to undertake the immediate publication, adding to it such other original works as the Society might possess on its own shelves.

The Secretary apprized the Meeting of the completion of the 2nd volume of the Mahábhārata, copies of which were ready for distribution to the subscribers.

Museum of Antiquities.

Read a Note on an Inscription at Bamyan, by M. C. MASSON.

[Printed in the present number.]

The two Buddhist Images, with Deva-nāgarī inscriptions, mentioned in a letter from Colonel H. BURNES, Resident at Ava, read at the last Meeting, were received, and a paper was read on *Tagoung*, the place of their discovery, an ancient capital of the Burmese empire.

[Printed in the present number.]

A drawing of the full size of the sculptured impression of GAUTAMA's foot in Ava, was presented by Ensign PHAYRE, with a description of the contents of the several compartments.

The image brought to the notice of the Society by Lieutenant KITTOE, in January 1835, sought out by Mr. Dean and transmitted for the Museum, had arrived with Col. COLVIN's dispatch.

This image does not seem to possess any characteristic difference from the ordinary sculpture of the Hindus, as had been imagined. The dress and attitude are of common occurrence ; the feet rest on the lotus plant. The head has been struck off, doubtless in the period of the earlier Muhammedan incursions.

Specimens of spears and other warlike instruments from New Zealand were presented by C. K. ROBISON, Esq.

Physical.

The Secretary announced the arrival of the second dispatch of Colonel COLVIN's donation of Sub-Himalayan fossils, which were placed in the Museum, and lighted up for inspection of the Members present.

The catalogue of this splendid collection, drawn up by Lieuts. DURAND and BAKER, is printed in the present number. The meeting resolved that the special thanks of the Society should be presented to Colonel COLVIN, and that suitable cabinets should be constructed for containing and preserving his donation.

With the foregoing were received the remains of the fossil Elk and fossil Buffalo, presented by Conductor DAWE, and alluded to in his letter read at the Meeting of the 6th May 1835.

The cervical vertebra and portion of antler were depicted in the 44th plate of vol. iv. The Bovine head, a very fine specimen, and materially different from Dr. SPILSBURY's from Narsinhpur, will be published shortly.

The following acquisitions to the museum of natural history were made :

A live specimen of *Histrix Cristata*, common Porcupine, presented by Mr. JAMES PRINSEP, to whom it was given by Mr. STEPHENSON, who found it in the Bakra mound in Tirlhut.

A specimen of *Cercocobus Sabæus*, presented by C. C. EGERTON, Esq.

Specimens of the skulls and horns of *Cervus Muntjak*, *Antilope Cervicapra*, *Antilope Chikara*, *Antilope Thar*, and *Capra Jemlahica*, horns of the *Antilope Hodgsonii*, and *Cervus Aristotelis*, the skull of a species of *Sciuropterus*, and the head and bills of *Buceros Malabaricus* and *Platalea Leucorodia*, presented by Lieutenant VICARY.

A specimen of *Cerinaceus Auritus*, and one of the Nilgherri Woodcock, presented by W. H. SMOULT, Esq.

Specimens of *Pitta Brachyurus*, *Picus Tiga* (?) and *Pterocles Quadricinctus*, presented by Lieutenant VICARY.

[The *Picus Tiga*, figured in HARDWICKE and GRAY, and described by HORSEFIELD, Linn. Trans. vol. xiii. and LATHAM, Gen. Hist. vol. iii., has only three toes; but both the figure and descriptions agree so exactly in all other respects, with the present specimen, which has four, that I have little hesitation in referring them to the same bird. J. T. P. Cur.]

A specimen of *Strix Flammea*; presented by P. HOMFRAY, Esq.

Specimens of the nest of *Hirundo Esculenta*, the Esculent Swallow, in several stages of preparation, by Ensign A. P. PHAYRE.

Seeds of the Cane tree, from the Straights, presented by Dr. Vos.

Mr. HODGSON transmitted an account of a new genus of Carnivora, to which he proposes to assign the name of *Ursitaxus*. The skull of the animal was intrusted by him to the Secretary for the inspection of Members.

[This paper will appear in the Physical Researches.]

On the motion of the Secretary, it was *resolved*, that the Right Honorable Lord AUCKLAND be solicited to accept the office of Patron of the Society; and that the President be requested to communicate with His Lordship on the subject.

Meteorological Register, kept at the Assay Office, Calcutta, for the Month of March, 1836.

Day of the Month.	Observations at 10 A. M.						Observations at 4 P. M.						Register Thermometer Extremes.		Rain.	Wind.		Weather.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	New Stand.	Barometer red. to 32°.	Old Stand.	Barometer at 32°.	Wet Baro. meter at 32°.	Aq. Ten. deduced.	Thermom. ter in air.	Diff. or M.	Leslie's Dif.	Hygrom.	Hair Hygrometer.	New Stand.	Barometer red. to 32°.	Old Stand.		Barometer at 32°.	Wet Baro. meter at 32°.		Aq. Ten. deduced.	Thermom. ter in air.	Diff. or M.	Leslie's Dif.	Hygrom.	Hair Hygrometer.	Cold on roof.	Heat in sun.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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By "a new standard Barometer" is to be understood the instrument lately received from London, by Mr. Neuman, as a duplicate of the Royal Society's Barometer; the tube has a bore of 6.357 inch, and the adjustment of the level of the cistern is perfect. As will be seen, however, by comparing its indications with those of my former standard or compensating Barometer (described in the 2nd vol. of the Journal), the new Barometer, contrary to expectation, stands .035 lower at 10 A. M. and .039 lower at 4 P. M.—This is after applying the correction for temperature, (4—32 X .002 at Bar. 30 inches).

A hurricane on the 23rd at night: most severe 30 miles N. of Calcutta, where very many boats were wrecked.

